April 25, 2011

Alan Prouty
J.R. Simplot Company
999 W Main St Ste 1300
Boise, Idaho 83702

Barbara Ritchie
FMC Corporation
1735 Market Street
Philadelphia, PA 19103

Re: **Eastern Michaud Flats (EMF) Superfund Site, Pocatello, Idaho**
Comprehensive Letter Report Documenting Potential Human Health Risks for Site COCs in the Off-Plant OU

Dear Ms. Lynch:

Hanna Associates, Inc. – Integrated Risk Management (IRM), on behalf of J.R. Simplot Company and FMC Corporation ('the Companies'), has prepared this Comprehensive Off-Plant Operable Unit (OU) Human Health Risk Assessment (HHRA) letter report as an Addendum to the EPA-approved *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b). The letter report has been prepared in response to item # 4 in EPA's October 8, 2010 letter which summarizes the path forward agreed upon between the Agencies and the Companies in order to fully address and document potential human health risks for all site-related contaminants of concern in the Off-Plant OU.

Background

The Off-Plant OU of the Eastern Michaud Flats Superfund Site (EMF Site) was investigated during the EMF RI and the sampling previously conducted had been believed sufficient for

characterization purposes. However, at the request of the EPA, specific areas of the Off-Plant OU and Simplot Plant OU were further investigated in 2009 in order to review and update the findings of the RI in areas targeted for land use controls due to elevated radium-226 soil levels in the June 1998 Record of Decision for the EMF Site (1998 ROD; EPA, 1998). Specifically, the Companies collected multi-increment composite surface soil samples from eight decision units (DUs) in accordance with an EPA-approved *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Work Plan* (MWH, 2009). Seven of the sampled DUs are located on properties that are not owned by FMC or Simplot and, thus, are within the Off-Plant OU. The eighth DU is located on Simplot property, northeast of the Simplot Don Plant. The locations of the eight DUs are shown in Figure 1, which also shows the area subject to land use control where radionuclide activities in surface soils were found in the Baseline HHRA (E&E, 1996) to exceed the 10-4 incremental cancer risk level. Based on the findings of the 2009 sampling event, the Companies produced the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b) to update the evaluation of radiological human health risks to potential future receptors in these areas. EPA approved the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* in a letter dated November 9, 2010.

To help address outstanding concerns related to cadmium exposure via the homegrown produce ingestion pathway, the Companies analyzed the multi-increment composite samples collected in 2009 for cadmium early in 2010. This step was taken because the DUs sampled as part of the radionuclide investigation also largely encompass the area identified for land use controls in the 1998 ROD due to the Baseline HHRA (E&E, 1996) determination that the cadmium hazard quotient (HQ) associated with the homegrown produce ingestion pathway exceeds one. This cadmium risk contour is also shown on Figure 1. The validated analytical data for cadmium were reported to EPA in a letter dated May 3, 2010.

During completion of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b), EPA noted the need for a comprehensive HHRA of all site-related contaminants of concern, including radionuclides, metals and fluoride, in the Off-Plant OU. To achieve this objective, EPA requested that the Companies also analyze the multi-incremental composite surface soil samples collected during the radionuclide investigation for additional constituents that were found to exceed risk-based comparative values (CVs) in one or more of the outermost DUs evaluated in the EPA-approved *Supplemental Remedial Investigation (SRI) Addendum Report for the FMC Plant OU* (*SRI Report for the FMC-Owned Northern Properties*; MWH, 2010a). Specifically, EPA requested that the samples be analyzed for fluoride, thallium, uranium and vanadium. In response, the Companies noted that the holding time for extraction of the multi-increment samples for analysis of these analytes had been exceeded. The Companies also noted that the soil concentration of elemental uranium could be calculated directly from the existing data for uranium-238.

A conference call was subsequently held on September 29, 2010 between EPA, the Companies, IDEQ and the Shoshone-Bannock Tribes (SBT) to discuss the path forward on finalizing the reassessment of both ecological and human health risk issues for the Off-Plant OU. In an October 8, 2010 letter summarizing the conference call, EPA noted that the radionuclide investigation samples should be analyzed for the additional inorganic constituents and that a Comprehensive HHRA letter report should be produced to document potential human health risks in the Off-Plant OU. EPA's letter also stated the opinion that the holding time exceedance would not impact the technical quality of the analytical results for fluoride, thallium and vanadium.

The remainder of this Comprehensive Off-Plant OU HHRA letter report, which forms an Addendum to the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation* Report (MWH, 2010b), summarizes the risk assessment methodologies and findings. Because the radionuclide risks have already been reported in the HHRA performed in support of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b) and the methods and assumptions used to evaluate metal and fluoride risks are the same as those used to perform the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a), a detailed description of the methods, assumptions and equations used to evaluate exposure and risk in this assessment is not provided herein. Instead, the reader is referred to relevant sections of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b) and the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a) for the relevant information. However, the calculations performed to characterize exposure and risk to chemical constituents are provided in an EXCEL workbook that is attached to this letter report (the radionuclide risk calculations were previously provided in Appendix D of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* [MWH, 2010b]).

Conceptual Site Model

With one minor exception, the conceptual site model (CSM) presented in Section 2 of the HHRA performed in support of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b) is identical to that used in this comprehensive evaluation. Specifically, the eight decision units (DUs) evaluated during the radionuclide investigation, the locations of which are shown in Figure 1, were also the subject of this Comprehensive HHRA. In addition, the same potential sources, release mechanisms, exposure media and human receptors evaluated in the radionuclide investigation were also incorporated into this study. However, to fully address potential risks associated with metals and fluoride, exposure via dermal absorption was evaluated in addition to each of the other soil exposure pathways included in the radionuclide investigation. The amended CSM used in this study is shown in Figure 2, and is the same as that used to evaluate potential exposures and risk from soil-related pathways in the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a), with the exception that the

amended CSM acknowledges that there are residential receptors currently living in the evaluated area of the Off-Plant OU. Table 1 summarizes the exposure pathways applicable to each of the evaluated potential future receptors.

Evaluation of Chemicals of Potential Concern/Radionuclides of Potential Concern (COPCs/ROPCs)

The ROPCs subject to further evaluation in the Off-Plant OU radionuclide investigation consisted of select members of the uranium-238 decay chain (uranium-238, radium-226 and lead-210). Eight 20-increment 0-to-2-inch below ground surface (bgs) composite surface soil samples were collected from each of the eight DUs and submitted for analysis of the three ROPCs. One field duplicate sample was also submitted for analysis from each DU. In addition, eight 20-increment 2-to-6-inch bgs composite surface soil samples (+ one field duplicate) were collected from each DU and submitted for analysis. The validated ROPC data were originally presented in Section 3 of the HHRA performed in support of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b), and are recreated in Tables 2a through 9a of this Comprehensive Off-Plant OU HHRA.

As previously discussed, in order to address residual concerns regarding potential risks via the homegrown produce ingestion pathway, the Companies also analyzed the multi-incremental composite surface soil samples collected during the radionuclide investigation for cadmium. The validated analytical data for cadmium were reported to EPA in a letter dated May 3, 2010, and are recreated in Tables 2b through 9b of this letter report.

As also previously discussed, during completion of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b), EPA requested that the Companies also analyze the multi-incremental composite surface soil samples for additional constituents that were found to exceed risk-based CVs in one or more of the outermost northern property parcels evaluated in the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a) (i.e., fluoride, thallium, uranium and vanadium). In response, the Companies noted that the holding time for extraction of the multi-increment samples for analysis of these analytes had been exceeded. However, the Companies also noted that the soil concentration of elemental uranium could be calculated from the existing data for uranium-238[1] using the equation below:

$$C_{Uranium} = \frac{C_{Uranium-238} \times 2.97}{0.99284}$$

[1] September 22, 2010 e-mail from N. Gudka (IRM) to K. Lynch (EPA) and M. Stifelman (EPA).

Where:

$C_{Uranium}$	=	Elemental uranium soil concentration (mg/kg),
$C_{Uranium-238}$	=	Uranium-238 soil concentration (pCi/g),
2.97	=	Conversion factor (pCi/g to mg/kg), and
0.99284	=	Natural fraction of uranium-238 in elemental uranium.

EPA responded stating that the Companies approach for characterizing elemental uranium soil concentrations was appropriate[2].

With respect to the fluoride, thallium and vanadium, EPA's October 8, 2010 letter stated that "EPA does not believe that the holding time exceedance would impact the technical quality of these results" and requested that the analyses be performed. Consequently, archived sample material from the radionuclide investigation was re-composited in accordance with procedures described in the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Work Plan* (MWH, 2009) and shipped under chain of custody protocol by the overnight carrier Federal Express to designated off-site laboratories for analysis. All samples were analyzed by ALS Laboratory Group (formerly DataChem Laboratories, Inc.) of Salt Lake City, Utah. The resulting fluoride, thallium and vanadium data was independently validated by Laboratory Data Consultants (LDC) of Sacramento, California. The laboratory data reports and LDC validation reports are provided in Attachment D (included on CD only).

During the analysis of the Off-Plant DU samples for total fluoride, low recoveries were noted in eight of the laboratory control samples (LSC). The Bellack distillation method used by the laboratory to prepare the samples for analysis is not a method routinely used for solid matrix (soil) fluoride analysis. Therefore, the laboratory does not have any statistical information for evaluating the proficiency of the extraction procedure. A guidance QC limit of 75 – 125 percent was assigned since no statistically derived limits were available. Of the eight LCSs performed the median recovery was 63%, which is moderately below the lower end of the assigned QC limit range. The fluoride data were flagged as estimated and potentially biased low (J-); however, none of the data were rejected. The significance of this potential low bias in the total fluoride data on the findings of this risk assessment is discussed in the Uncertainty Assessment.

The validated COPC analytical data (i.e., data for cadmium, fluoride, thallium, uranium and vanadium) associated with the composite surface soil samples (i.e., 0-to-2 inch bgs and 2-to-6 inch bgs) procured from the eight DUs are presented in Tables 2b through 9b.

Data Treatment and Screening

Section 3 of the HHRA performed in support of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b) describes the data treatment procedures and

[2] September 23, 2010 e-mail from K. Lynch (EPA) to N. Gudka (IRM).

screening steps taken to identify radionuclides of concern (ROCs) to be carried forward into the quantitative risk assessment. The data treatment procedures and screening steps taken to identify chemicals of concern (COCs) to be carried forward into this quantitative risk assessment are the same as those described in Section 3 and Attachment A of the HHRA performed in support of the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a).

In both cases, the decision rules specify the comparison of the mean concentration of each COPC/ROPC in a DU to a risk-based CV. The CV is defined as the 95% UCL on the mean COPC/ROPC background concentration plus the COPC/ROPC soil screening level (SSL) protective of the receptor of concern. The residential and worker CVs, which correspond to those used in the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a) and *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b), along with the underlying SSLs and background levels, are provided in Table 10.

Per the decision rules in both the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a) and the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b), any COPC/ROPC with a mean concentration above applicable residential and/or worker CVs in a DU is to be carried forward into the quantitative risk assessment within this Comprehensive Off-Plant OU HHRA. The results of this screening are shown for each DU in Tables 2 (a & b) through 9 (a & b), and the combinations of receptor- and DU-specific COCs/ROCs that were carried forward into the quantitative risk assessment are summarized in Table 11. As shown in this table, no ROPCs exceeded applicable residential or worker CVs in surface soils within DUs 1, 3, 4, 5, 6 and 7. However, radium-226 and lead-210 exceeded residential CVs in DU 2, and radium-226 also exceeded the commercial/industrial worker CV in this DU. In addition, radium-226 exceeded the residential and commercial/industrial worker CVs in DU 8. With respect to COPCs, cadmium exceeded the residential surface soil CV in DUs 1, 2, 3, 4, 5, 7 and 8. No other COPC exceedances of residential or worker CVs were noted in any of the eight DUs.

Accordingly, the Comprehensive Off-Plant OU HHRA was focused on evaluating risks to potential future residential and commercial/industrial worker receptors from exposure to radium-226, lead-210 and cadmium in those DUs in which specific CV exceedances were noted.

Exposure Assessment

As documented in Section 4 of the HHRA performed in support of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b), the methodologies used to characterize ROC concentrations in exposure media and, subsequently, quantify exposure to receptors are the same as those used in the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a). Similarly, the methodologies used to characterize receptor

exposure to COCs in this study are also the same as those used in the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a).

COC/ROC Exposure Point Concentrations

Per the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a), potential risks to receptors of concern were evaluated in this assessment under both reasonable maximum exposure (RME) and central tendency exposure (CTE) assumptions. With the exception of the homegrown fruit and vegetable exposure pathway, risks under the RME scenario (which is typically assumed to be representative of exposure to the 95th percentile individual in an exposed population; i.e., upperbound) were evaluated using the 95% upper confidence limit (UCL) on the mean COC/ROC soil concentrations to characterize exposures. 95% UCL concentrations were developed from the 0-to-2 inch bgs composite data set for all pathways except external exposure to gamma radiation and ingestion of homegrown produce, for which the 0-to-6 inch bgs data set was used.

For the ingestion of homegrown produce pathway, mean COC/ROC concentrations developed from the 0-to-6 inch bgs composite data (to account for root zone depth) were combined with the same conservative, upperbound soil-to-plant uptake factors described in Attachment A (radionuclides) and Attachment G (cadmium) of the HHRA performed in support of the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a) to characterize RME fruit and vegetable exposure point concentrations (EPCs). Risks under the CTE scenario were evaluated using the mean ROC/COC soil concentrations for all exposure pathways. The resulting DU-specific RME and CTE soil EPCs, along with corresponding background EPCs, are presented in Table 12.

COC/ROC Intake Rates (Doses)

The methods, assumptions and equations used to characterize COC/ROC intake rates via the various exposure pathways evaluated are identical to those described in Section 4 of the HHRA performed in support of the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a). The RME and CTE exposure factors incorporated into these equations are summarized in Tables 13 and 14, respectively.

Toxicity Assessment

The purpose of the toxicity assessment is to identify toxicity values and criteria to be used in the risk characterization to evaluate the potential for adverse human health effects. Toxicity values and criteria are developed by government agencies through the process of a dose-response assessment. Dose-response assessments characterize the quantitative relationship between the dose of an agent (chemical or radionuclide) and the potential for adverse health effects occurring in exposed populations. When evaluating the potential for carcinogenesis, the dose-response assessment results in a quantitative estimate of the probability of the incidence of cancer upon exposure to a given dose of a chemical. When evaluating the potential for adverse noncarcinogenic toxicity, the dose-response assessment results in a standard or acceptable exposure level to which a receptor's potential exposure may be quantitatively compared.

For many chemicals, standard procedures for toxicity assessment have been used to identify dose-response relationships from which resulting toxicity values and criteria are available. Toxicity values/criteria are developed based on toxic effect (carcinogenic or noncarcinogenic), route of exposure (inhalation, oral, or external), and length of exposure (sub-chronic or chronic). The protocol for identifying toxicity values to be used to evaluate risks to current and potential future receptors from exposure to COCs and ROCs in the Off-Plant OU is the same as that described in Section 5 of the HHRA performed in support of the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a), and is not repeated herein.

The cancer slope factor values used to evaluate risks to current and potential future receptors from exposure to ROCs (i.e., lead-210 and radium-226) at DUs 2 and 8 are provided in Table 15. The value and source of the unit risk factor used to evaluate COC (i.e., cadmium) inhalation cancer risks is provided in Table 16 and, finally, the oral reference dose (RfD_o) and inhalation reference concentration (RfC or RfC_i) toxicity values used to evaluate the potential for noncarcinogenic health effects during a chronic exposure to cadmium are presented in Table 17.

Risk Characterization

The methods and equations used to quantitatively characterize potential carcinogenic and non-carcinogenic risks in this assessment were the same as those presented in Section 6 of the HHRAs performed in support of the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a) and *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation* (MWH, 2010b). The resulting DU-specific total, background and incremental cancer and non-cancer risks for the COCs/ROCs carried forward into the quantitative risk assessment are discussed sequentially below.

DU 1

DU 1 is about 46 acres in size and is located on property owned by the City of Pocatello. DU 1 is bounded to the south by I-86, by DU 2 to the east, and agricultural land to the north and west. The City of Pocatello uses this land for the surface application of sewage sludge from the City of Pocatello's Publically Owned Treatment Works (POTW), and leases the property for agricultural production of wheat and/or hay crops.

The cadmium soil concentration in DU 1 was found to exceed the residential CV. Consequently, as shown in Table 11, cadmium was carried forward into the quantitative assessment for evaluation of potential risks to hypothetical future residents. As shown in Table 18, the resulting cumulative total RME non-cancer risk estimate for hypothetical future residential receptors in DU 1 (HQ = 0.8) was found to be less than one. This risk estimate is driven by the homegrown produce ingestion pathway (HQ = 0.7) and, to a lesser extent, the incidental soil ingestion (HQ = 0.1) pathway. As also shown in Table 18, the cumulative RME total lifetime cancer risk for hypothetical future residents (3E-09) is well below EPA's acceptable risk range[3].

DU 2

DU 2 is about 45 acres in size and is located on property owned by the City of Pocatello. DU 2 is bounded to the south by I-86, by DU 1 to the west, by DU 3 to the north and non-agricultural land owned by FMC to the east. The City of Pocatello uses this land for surface application of sewage sludge from the City of Pocatello's POTW and leases the property for agricultural production of wheat and/or hay crops.

Levels of radium-226 were found to exceed residential and/or commercial/industrial screening CVs in DU 2, while lead-210 exceeded the residential screening CV only. Cadmium was also found to exceed the residential screening CV. Consequently, as shown in Table 11, these constituents were identified as COCs/ROCs and carried forward for quantitative evaluation of potential risks.

As shown in Table 19, cumulative RME total lifetime cancer risks for all evaluated receptors (hypothetical future residents and commercial/industrial workers) were found to be within EPA's acceptable risk range. Specifically, the HHRA estimated that cumulative RME total lifetime cancer risks to the two most highly exposed receptors, hypothetical future residents and future outdoor workers, are 1E-04 and 6E-05, respectively. Radium-226 via the external exposure to

[3] EPA's acceptable range is generally defined as 1E-04 to 1E-06 but also includes an upperbound of 3E-04 as essentially equivalent to 1E-04 (see EPA's *Establishment of Cleanup Levels for CERCLA Sites with Radioactive Contamination*, OSWER No. 9200.4-18, 1997).

gamma radiation pathway was found to drive these risks, comprising approximately 95% of the cumulative total cancer risk estimates for the most highly exposed residential receptors.

It is also noteworthy that the RME lifetime cancer risk associated with background concentrations accounts for over 80% of the total residential and outdoor worker cancer risk estimates. Consequently, cumulative RME incremental cancer risk estimates (i.e., total minus background risks) are significantly lower than the cumulative total cancer risks; e.g., 3E-05 for hypothetical future residents and 1E-05 for future outdoor workers).

In addition, cumulative total lifetime cancer risks under the CTE scenario were found to be well below 1E-04 for all evaluated receptors; e.g., 2E-05 for hypothetical future residents and 1E-05 for future outdoor workers.

Finally, as also shown in Table 19, the cumulative total RME non-cancer risk estimate for hypothetical future residential receptors in DU 2 (HQ = 0.8) was found to be less than one. This risk estimate is driven by the homegrown produce ingestion pathway (HQ = 0.7) and, to a lesser extent, the incidental soil ingestion (HQ = 0.1) pathway.

DU 3

DU 3 is about 37 acres in size and is located on property owned by the City of Pocatello. DU 3 is bounded to the south by DU 2, by agricultural land to the west, by DU 4 and the Chevron tank farm to the east and by an active gravel pit owned by Bingham Investments to the north. The City of Pocatello uses this land for the surface application of sewage sludge from the City of Pocatello's POTW and leases the property for agricultural production, which currently consists of wheat and/or hay crops.

The cadmium soil concentration in DU 3 was found to exceed the residential CV. Consequently, as shown in Table 11, cadmium was carried forward into the quantitative assessment for evaluation of potential risks to hypothetical future residents. As shown in Table 20 , the resulting cumulative total RME non-cancer risk estimate for hypothetical future residential receptors in DU 3 (HQ = 0.8) was found to be less than one. This risk estimate is driven by the homegrown produce ingestion pathway (HQ = 0.7) and, to a lesser extent, the incidental soil ingestion (HQ = 0.1) pathway. As also shown in Table 20, the cumulative RME total lifetime cancer risk for hypothetical future residents (3E-09) is well below EPA's acceptable risk range.

DU 4

DU 4 is about 39 acres in size and is located on property owned by Rowland's Inc. and/or (b) (6) . DU 4 is bounded to the south by the Chevron tank farm and DU 5, to the west by DU 3, the gravel pit owned by Bingham Investments and non-agricultural land, and to the north and east by agricultural and non-agricultural land owned by (b) (6) and/or Rowland's Inc.

The cadmium soil concentration in DU 4 was found to exceed the residential CV. Consequently, as shown in Table 11, cadmium was carried forward into the quantitative assessment for evaluation of potential risks to hypothetical future residents. As shown in Table 21 , the resulting cumulative total RME non-cancer risk estimate for hypothetical future residential receptors in DU 4 (HQ = 0.8) was found to be less than one. This risk estimate is driven by the homegrown produce ingestion pathway (HQ = 0.7) and, to a lesser extent, the incidental soil ingestion (HQ = 0.1) pathway. As also shown in Table 21, the cumulative RME total lifetime cancer risk for hypothetical future residents (3E-09) is well below EPA's acceptable risk range.

DU 5

DU 5 is about 44 acres in size and is located on property owned by Rowland's Inc. and/or (b) (6) . The property is used for agricultural production of potatoes, wheat and/or hay. DU 5 is bounded to the south by non-agricultural property owned by FMC and Rowland's Inc., by the Chevron tank farm and DU 4 to the west, by non-agricultural land owned by (b) (6) to the north and a light industrial area owned by Rowland's Inc. to the east.

The cadmium soil concentration in DU 5 was found to exceed the residential CV. Consequently, as shown in Table 11, cadmium was carried forward into the quantitative assessment for evaluation of potential risks to hypothetical future residents. As shown in Table 22 , the resulting cumulative total RME non-cancer risk estimate for hypothetical future residential receptors in DU 5 (HQ = 0.8) was found to be less than one. This risk estimate is driven by the homegrown produce ingestion pathway (HQ = 0.7) and, to a lesser extent, the incidental soil ingestion (HQ = 0.1) pathway. As also shown in Table 22, the cumulative RME total lifetime cancer risk for hypothetical future residents (3E-09) is well below EPA's acceptable risk range.

DU 7

DU 7 is about 57 acres in size and is located partially on property owned by the Shoshone-Bannock Tribes (SBT) and partially on property owned in fee by (b) (6) . DU 7 is bounded to the south by non-agricultural sagebrush steppe property owned by SBT, by agricultural and non-agricultural land to the west, by agricultural land to the north and by non-agricultural sagebrush steppe land owned by FMC and SBT to the east. The portion of DU 7 owned by the SBT is primarily non-agricultural sagebrush steppe, and the portion owned in fee by (b) (6) is non-agricultural sagebrush steppe used for grazing cattle and agricultural land used in the production of potatoes, wheat and/or hay.

The cadmium soil concentration in DU 7 was found to exceed the residential CV. Consequently, as shown in Table 11, cadmium was carried forward into the quantitative assessment for evaluation of potential risks to hypothetical future residents. As shown in Table 23 , the resulting cumulative total RME non-cancer risk estimate for hypothetical future residential receptors in DU 7 (HQ = 0.8) was found to be less than one. This risk estimate is driven by the homegrown produce ingestion pathway (HQ = 0.7) and, to a lesser extent, the incidental soil ingestion (HQ = 0.1) pathway. As also shown in Table 23, the cumulative RME total lifetime cancer risk for hypothetical future residents (3E-09) is well below EPA's acceptable risk range.

DU 8

DU 8 is about 18 acres in size and is located on property owned by Simplot, north of Simplot's Don Plant. DU 8 is an elongated property running roughly in a northwest to southeast direction and is bounded to the south by I-86 and agricultural land, by agricultural land to the north and northeast, and the City of Pocatello's POTW to the west and southwest. A Simplot pond is located to the southeast of DU 8. The land on DU 8 is relatively undisturbed and is not currently used for agricultural purposes. Several buildings including storage sheds and other out buildings are present on the DU 8 property. Several access roads are present within DU 8 and a drainage ditch/channel is located on the northern side of the property.

Levels of radium-226 were found to exceed residential and commercial/industrial screening CVs in DU 8. Cadmium was also found to exceed the residential screening CV. Consequently, as shown in Table 11, these constituents were identified as COCs/ROCs and carried forward for quantitative evaluation of potential risks.

As shown in Table 24, cumulative RME total lifetime cancer risks for all evaluated receptors (hypothetical future residents and commercial/industrial workers) are within EPA's acceptable

risk range. Specifically, the HHRA estimated that cumulative RME total lifetime cancer risks to the two most highly exposed receptors, hypothetical future residents and future outdoor workers, are 1E-04 and 6E-05, respectively. Radium-226 via the external exposure to gamma radiation pathway was found to drive these risks, comprising over 98% of the cumulative total cancer risk estimates for the most highly exposed residential receptors.

It is also noteworthy that the RME lifetime cancer risk associated with background concentrations accounts for approximately 75% of the total residential and outdoor worker cancer risk estimates. Consequently, cumulative RME incremental cancer risk estimates (i.e., total minus background risks) are significantly lower than the cumulative total cancer risks; e.g., 3E-05 for hypothetical future residents and 2E-05 for future outdoor workers).

In addition, cumulative total lifetime cancer risks under the more realistic CTE scenario were found to be well below 1E-04 for all evaluated receptors; e.g., 2E-05 for hypothetical future residents and 1E-05 for future outdoor workers.

Finally, as also shown in Table 24, the cumulative total RME non-cancer risk estimate for hypothetical future residential receptors in DU 8 (HQ = 0.8) was found to be less than one. This risk estimate is driven by the homegrown produce ingestion pathway (HQ = 0.7) and, to a lesser extent, the incidental soil ingestion (HQ = 0.1) pathway.

Summary

The cadmium exposure assessment and risk characterization calculations for each DU are provided in the "Comprehensive HHRA Cd Risk Calculations_April 2011.xls" EXCEL workbook attached to this letter report. In addition, COC/ROC-specific RME and CTE cancer risk are summarized in Tables 25 a and b. Similarly, RME and CTE non-cancer hazard estimates for each exposure pathway and Off-Plant OU DU are summarized in Tables 26 a and b.

Uncertainty Assessment

Because risk characterization serves as a bridge between risk assessment and risk management, it is important to identify and evaluate major assumptions, scientific judgments, and estimates of uncertainties. The certainty of the calculated human health risk estimates will depend on the magnitude of uncertainties inherent in each step of the risk assessment process. Many of these uncertainties are generic to the risk assessment process, while others are site-specific.

The uncertainties, along with the extent to which conservatism is built into an assessment, largely determine the level of confidence that can be placed in the quantitative risk estimates. Qualitative assessments of uncertainty within each step of the human health risk assessment process (i.e., COPC/ROPC selection, data treatment, fate and transport modeling, exposure assessment, toxicity assessment, and risk characterization), which were presented in Section 7 of the respective HHRAs performed in support of the *Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Report* (MWH, 2010b) and the *SRI Report for the FMC-Owned Northern Properties* (MWH, 2010a), are also applicable to this Comprehensive Off-Plant OU and are not repeated herein. In summary, these uncertainty assessments determined that risk assessment methods are designed to be highly conservative to address the uncertainties associated with each step in the risk assessment process. Thus, "true" risks are very unlikely to be greater than (and may be significantly less than) risks estimated using standard EPA risk assessment methods.

With respect to uncertainties specific to this assessment, the Off-Plant OU total fluoride data are potentially low-biased as previously noted herein (median recovery in LCS samples [63%] is 16% lower than the 75% lower end of the assigned QC limit range). However, increasing the mean fluoride soil concentration reported within each Off-Plant DU by 16% would not result in any exceedances of residential or worker screening CVs or PRGs. Moreover, increasing the reported mean fluoride soil concentration in each DU by 37% (i.e., corresponding to an assumed 100% recovery) would only result in a marginal exceedance of the residential screening CV in DU 8 (833 mg/kg versus 772 mg/kg CV). This concentration equates to a residential hazard quotient marginally above 0.1, and is nearly an order of magnitude below the residential PRG (7,200 mg/kg). Thus, uncertainties associated with the potential low bias in the reported fluoride soil data do not substantively affect the findings of this risk assessment.

Recommendations

The information presented in this report indicates that sufficient data have been collected to characterize site-related contaminant levels in surface soils within DUs 1 through 8. Moreover, potential human health risks associated with the measured radionuclide, metal and fluoride levels are below a level of concern in all 8 DUs.

Based on the above findings, the following conclusions/recommendations are made:

1. No further investigation of radionuclide, metal or fluoride soil levels is necessary in Off-Plant OU DUs 1 through 7 and Simplot Plant OU DU 8.

2. No additional investigation of radionuclide, metal or fluoride levels is necessary in other Off-Plant OU areas, since they are located further from the EMF facilities than the DUs evaluated in this report.

If you have any questions concerning this report, please feel free to call myself at (540) 423-9198.

Sincerely,

Nicholas Gudka
Project Director
Hanna Associates, Inc. – Integrated Risk Management

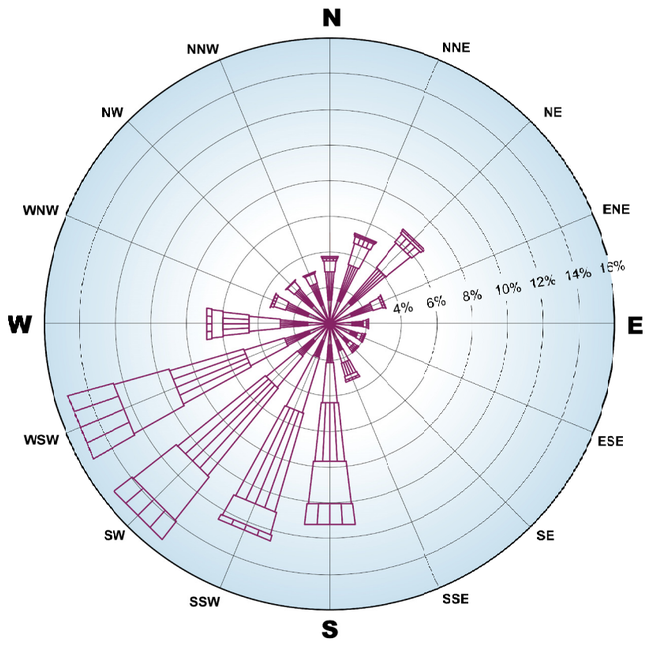
Attachments:

Attachment A:	Figures
Attachment B:	Tables
Attachment C:	References
Attachment D:	Laboratory Data and Data Validation Reports (Cd, F, Tl and V) (electronic only on CD)
Attachment E:	EXCEL Workbook - Comprehensive HHRA Cd Risk Calculations_April 2011.xls (electronic only on CD)

ATTACHMENT A - FIGURES

Figure 1: Site Map Decision Units

Figure 2: Conceptual Site Model for Potential Human Exposure to COPCs/ROPCs in the Off-Plant OU



WIND ROSE
Pond Site
1/26/99 - 1/25/00

FREQUENCY OF WIND SPEED AND DIRECTION

HEAVY INDUSTRIAL ZONE

HEAVY INDUSTRIAL ZONE 1.2 Mile Buffer

DU 1
DU 2
DU 3
DU 4
DU 5
DU 6
DU 7
DU 8

86

FORT HALL RESERVATION EASTERN BOUNDARY

Legend

- FMC Property Boundary
- Simplot Property Boundary
- Area subject to land use control in the 1998 ROD due to cadmium exceeding a hazard quotient of 1
- Area subject to land use control in the 1998 ROD due to radionuclide activities exceeding 10^{-4} incremental cancer risk level.
- Areas excluded from sampling

N
W
E
S

0 800 1600
Feet

MWH

FMC

COMPREHENSIVE OFF-PLANT OU HHRA
FIGURE 1
SITE MAP
DECISION UNITS

FILE Fig 1_SiteMapDecisionUnits_HHRA 27Jan2011

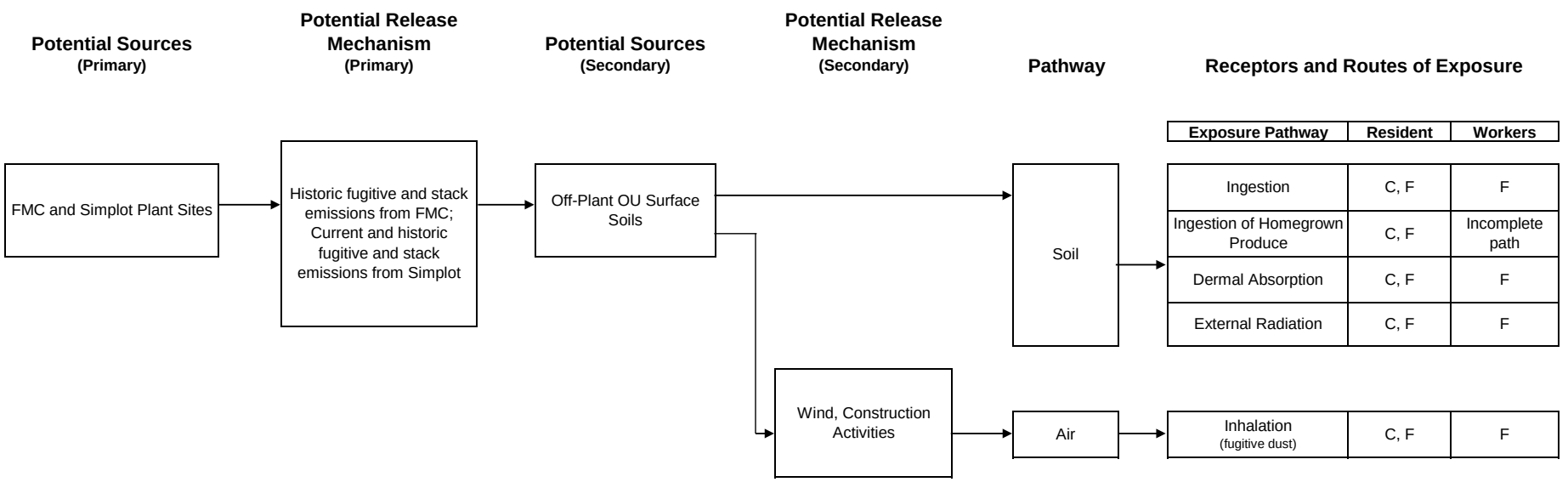


Figure 2

CONCEPTUAL SITE MODEL FOR POTENTIAL HUMAN EXPOSURE TO COPCs/ROPCs IN THE OFF-PLANT OU

Comprehensive Off-Plant OU HHRA

Addendum to the Off-Plant OU Supplemental Surface Soil Radionuclide Investigation

April 2011

ATTACHMENT B - TABLES

TABLES (continued)

TABLES (continued)

TABLE 1
EXPOSURE PATHWAYS FOR RECEPTORS OF CONCERN
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Potential Exposure Pathways	Residential Scenario	Commercial/Industrial Scenarios		Construction-Related Scenarios	
	Off-Plant OU Resident	Outdoor Worker	Indoor Worker	Construction Worker	Utility Worker
Incidental soil ingestion	X	X	X	X	X
Ingestion of homegrown fruits and vegetables	X				
Dermal absorption	X	X		X	X
Inhalation of fugitive dust	X	X		X	X
External exposure to gamma radiation	X	X	X	X	X

X = Pathway to be evaluated in the risk assessment for this receptor.

TABLE 2a
DU1 RADIOLOGICAL DATA SUMMARY AND EVALUATION AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Lead-210	Radium-226	Uranium-238
Units	pCi/g	pCi/g	pCi/g
0-6" Soil Background (95% UCL on Mean)	1.46	1.21	0.96
Residential Human Health Comparative Value (CV)[a]	1.91	1.22	1.74
Residential Human Health PRG[b]	31.0	2.51	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	2.40	1.23	2.37
Commercial/Industrial Worker PRG[b]	67.2	3.75	NC
Construction Worker Comparative Value (CV)[a]	8.90	2.13	21.6
Construction Worker PRG[b]	615	104	NC
0-6" Mean Concentration	1.42	1.21	1.03
0-6" 95% UCL on Mean Concentration	1.47	1.30	1.14

[a] Human health CVs established as the 0-6"95% UCL on mean background concentration + receptor-specific soil screening level (SSL).

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-6" mean concentration exceeds the residential CV.

0-6" mean concentration exceeds residential and worker CVs.

0-6" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Analyte					Lead-210	Radium-226	Uranium-238
Units					pCi/g	pCi/g	pCi/g
0 - 2" Soil Background (95% UCL on Mean)					2.02	0.95	0.88
Location Identification	Field Sample Identification	Date Collected	Depth (in)				
DU1-SSC001	DU1-SSC001 (0-2)	11/09/09	0-2		**1.51 ± 0.38**	**1.04 ± 0.28**	**0.68 ± 0.16**
DU1-SSC002	DU1-SSC002 (0-2)	11/10/09	0-2		**1.39 ± 0.35**	**1.19 ± 0.31**	**0.98 ± 0.22**
DU1-SSC003	DU1-SSC003 (0-2)	11/10/09	0-2		**1.52 ± 0.38**	**1.11 ± 0.29**	**0.93 ± 0.23**
DU1-SSC004	DU1-SSC004 (0-2)	11/10/09	0-2		**1.46 ± 0.36**	**1.02 ± 0.30**	**1.15 ± 0.24**
DU1-SSC005	DU1-SSC005 (0-2)	11/10/09	0-2		**1.59 ± 0.4**	**0.89 ± 0.29**	**1.24 ± 0.26**
DU1-SSC205	DU1-SSC205 (0-2)	11/10/09	0-2		**1.4 ± 0.35**	**1.31 ± 0.34**	**0.90 ± 0.19**
DU1-SSC006	DU1-SSC006 (0-2)	11/10/09	0-2		**1.48 ± 0.37**	**1.27 ± 0.34**	**0.99 ± 0.23**
DU1-SSC007	DU1-SSC007 (0-2)	11/11/09	0-2		**1.4 ± 0.35**	**1.20 ± 0.31**	**1.16 ± 0.25**
DU1-SSC008	DU1-SSC008 (0-2)	11/11/09	0-2		**1.52 ± 0.38**	**1.35 ± 0.35**	**1.02 ± 0.22**
0-2" Mean Concentration					1.47	1.16	1.00
0-2" 95% UCL on Mean Concentration					1.51	1.24	1.10
2 - 6" Soil Background (95% UCL on Mean)					1.17	1.34	1.00
DU1-SSC001	DU1-SSC001 (2-6)	11/09/09	2-6		**1.34 ± 0.34**	**1.30 ± 0.32**	**1.16 ± 0.25**
DU1-SSC002	DU1-SSC002 (2-6)	11/10/09	2-6		**1.28 ± 0.32**	**1.25 ± 0.31**	**1.12 ± 0.24**
DU1-SSC003	DU1-SSC003 (2-6)	11/10/09	2-6		**1.52 ± 0.38**	**1.37 ± 0.34**	**0.95 ± 0.21**
DU1-SSC004	DU1-SSC004 (2-6)	11/10/09	2-6		**1.45 ± 0.36**	**1.18 ± 0.30**	**0.87 ± 0.19**
DU1-SSC005	DU1-SSC005 (2-6)	11/10/09	2-6		**1.35 ± 0.34**	**1.17 ± 0.32**	**0.99 ± 0.21**
DU1-SSC205	DU1-SSC205 (2-6)	11/10/09	2-6		**1.4 ± 0.35**	**1.54 ± 0.42**	**0.95 ± 0.21**
DU1-SSC006	DU1-SSC006 (2-6)	11/10/09	2-6		**1.43 ± 0.36**	**1.18 ± 0.32**	**0.87 ± 0.19**
DU1-SSC007	DU1-SSC007 (2-6)	11/11/09	2-6		**1.42 ± 0.36**	**1.30 ± 0.34**	**1.00 ± 0.21**
DU1-SSC008	DU1-SSC008 (2-6)	11/11/09	2-6		**1.34 ± 0.34**	**0.92 ± 0.26**	**1.40 ± 0.31**
2-6" Mean Concentration					1.39	1.23	1.04
2-6" 95% UCL on Mean Concentration					1.45	1.33	1.16

Bold Bolded result indicates positively identified compound.

TABLE 2b
DU 1 CHEMICAL DATA SUMMARY AND EVALUATION
AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0 - 2" Soil Background (95% UCL on Mean)	0.72	302	0.13	0.66	19.6
Residential Human Health Comparative Value (CV)[a]	3.1	772	0.64	5.3	58.6
Residential Human Health PRG[b]	NC	7200	NC	NC	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	860	68396	77	682	7969
Commercial/Industrial Worker PRG[b]	830	100000	NC	NC	NC
Construction Worker Comparative Value (CV)[a]	82	33346	375	251	3523
Construction Worker PRG[b]	39	49000	NC	NC	NC
0-2" Mean Concentration	4.8	318	0.21	3.0	18
0-2" 95% UCL on Mean Concentration	5.1	382	0.22	3.3	18

[a] Residential human health CV established as the 95% UCL on mean background concentration + the lower of the residential soil screening level (SSL) for direct exposure pathways or the homegrown produce ingestion pathway.

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-2" mean concentration exceeds the residential CV.
0-2" mean concentration exceeds residential and worker CVs.
0-2" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Analyte: Cadmium	Fluoride	Thallium	Uranium	Vanadium
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DU1-SSC001	DU1-SSC001 (0-2)	11/09/09	0-2		**4.5 B**	**340 J-,B**	**0.22 T**	**2.03**	**17**
DU1-SSC002	DU1-SSC002 (0-2)	11/09/09	0-2		**4.3 B**	**420 J-,B**	**0.21 T**	**2.93**	**17**
DU1-SSC003	DU1-SSC003 (0-2)	11/10/09	0-2		**5.3 B**	**260 J-,B**	**0.21 T**	**2.78**	**19**
DU1-SSC004	DU1-SSC004 (0-2)	11/10/09	0-2		**4.8 B**	**300 J-,B**	**0.2 T**	**3.44**	**16**
DU1-SSC005	DU1-SSC005 (0-2)	11/10/09	0-2		**4.7 B**	**270 J-,B**	**0.21 T**	**3.71**	**18 J-**
DU1-SSC005	DU1-SSC205 (0-2)	11/10/09	0-2		**4.5 B**	**600 J-,B**	**0.2 T**	**2.69**	**17**
DU1-SSC006	DU1-SSC006 (0-2)	11/10/09	0-2		**4.7 B**	**390 J-,B**	**0.21 T**	**2.96**	**19**
DU1-SSC007	DU1-SSC007 (0-2)	11/11/09	0-2		**5.6 B**	**170 J-,B**	**0.22 T**	**3.47**	**18**
DU1-SSC008	DU1-SSC008 (0-2)	11/11/09	0-2		**4.7 B**	**230 J-,B**	**0.2 T**	**3.05**	**18**
0-2" Mean Concentration					**4.8**	**318**	**0.21**	**2.99**	**18**
0-2" 95% UCL on Mean Concentration					**5.1**	**382**	**0.22**	**3.29**	**18**
DU1-SSC001	DU1-SSC001 (2-6)	11/09/09	2-6		**3.8 B**	**410 J-,B**	**0.23 T**	**3.47**	**18**
DU1-SSC002	DU1-SSC002 (2-6)	11/09/09	2-6		**4.7 B**	**300 J-,B**	**0.22 T**	**3.35**	**19**
DU1-SSC003	DU1-SSC003 (2-6)	11/10/09	2-6		**5 B**	**190 J-,B**	**0.2 T**	**2.84**	**16**
DU1-SSC004	DU1-SSC004 (2-6)	11/10/09	2-6		**4.8 B**	**420 J-,B**	**0.22 T**	**2.60**	**18**
DU1-SSC005	DU1-SSC005 (2-6)	11/10/09	2-6		**4.7 B**	**340 J-,B**	**0.21 T**	**2.96**	**17 J-**
DU1-SSC005	DU1-SSC205 (2-6)	11/10/09	2-6		**4.7 B**	**560 J-,B**	**0.22 T**	**2.84**	**18**
DU1-SSC006	DU1-SSC006 (2-6)	11/10/09	2-6		**4.8 B**	**310 J-,B**	**0.2 T**	**2.60**	**17**
DU1-SSC007	DU1-SSC007 (2-6)	11/11/09	2-6		**5.3 B**	**310 J-,B**	**0.22 T**	**2.99**	**18**
DU1-SSC008	DU1-SSC008 (2-6)	11/11/09	2-6		**4.8 B**	**470 J-,B**	**0.22 T**	**4.19**	**18**
2-6" Mean Concentration					**4.7**	**358**	**0.22**	**3.11**	**18**
2-6" 95% UCL on Mean Concentration					**5.0**	**421**	**0.22**	**3.47**	**18**

Bold Bolded result indicates positively identified compound.

T Analyte was positively identified but the reported concentration is estimated; reported concentration is less than the reporting limit, but greater than the method detection limit.

B Analyte detected in an associated blank.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 3a
DU2 RADIOLOGICAL DATA SUMMARY AND EVALUATION AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Lead-210	Radium-226	Uranium-238
Units	pCi/g	pCi/g	pCi/g
0-6" Soil Background (95% UCL on Mean)	1.46	1.21	0.96
Residential Human Health Comparative Value (CV)[a]	1.91	1.22	1.74
Residential Human Health PRG[b]	31.0	2.51	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	2.40	1.23	2.37
Commercial/Industrial Worker PRG[b]	67.2	3.75	NC
Construction Worker Comparative Value (CV)[a]	8.90	2.13	21.6
Construction Worker PRG[b]	615	104	NC
0-6" Mean Concentration	1.99	1.64	1.16
0-6" 95% UCL on Mean Concentration	2.22	1.73	1.31

[a] Human health CVs established as the 0-6"95% UCL on mean background concentration + receptor-specific soil screening level (SSL).

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-6" mean concentration exceeds the residential CV.
0-6" mean concentration exceeds residential and worker CVs.
0-6" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Lead-210	Radium-226	Uranium-238
			Analyte		Lead-210	Radium-226	Uranium-238
			Units		pCi/g	pCi/g	pCi/g
			0 - 2" Soil Background (95% UCL on Mean)		2.02	0.95	0.88
DU2-SSC001	DU2-SSC001 (0-2)	11/05/09	0-2		2.07 ± 0.51	1.6 ± 0.39	1.3 ± 0.28
DU2-SSC002	DU2-SSC002 (0-2)	11/05/09	0-2		1.96 ± 0.49	1.49 ± 0.36	0.54 ± 0.14
DU2-SSC003	DU2-SSC003 (0-2)	11/06/09	0-2		1.91 ± 0.47	1.65 ± 0.40	0.50 ± 0.15
DU2-SSC004	DU2-SSC004 (0-2)	11/06/09	0-2		2.07 ± 0.51	1.67 ± 0.41	1.10 ± 0.24
DU2-SSC005	DU2-SSC005 (0-2)	11/06/09	0-2		2.07 ± 0.51	1.78 ± 0.42	1.26 ± 0.26
DU2-SSC006	DU2-SSC006 (0-2)	11/06/09	0-2		2.01 ± 0.5	1.45 ± 0.39	0.62 ± 0.17
DU2-SSC007	DU2-SSC007 (0-2)	11/06/09	0-2		1.89 ± 0.47	1.92 ± 0.45	1.00 ± 0.22
DU2-SSC008	DU2-SSC008 (0-2)	11/09/09	0-2		2.08 ± 0.51	1.61 ± 0.38	1.08 ± 0.24
DU2-SSC206	DU2-SSC206 (0-2)	11/06/09	0-2		1.93 ± 0.48	1.73 ± 0.42	1.50 ± 0.35
0-2" Mean Concentration					2.00	1.66	0.98
0-2" 95% UCL on Mean Concentration					2.06	1.75	1.18
			2 - 6" Soil Background (95% UCL on Mean)		1.17	1.34	1.00
DU2-SSC001	DU2-SSC001 (2-6)	11/05/09	2-6		1.88 ± 0.47	1.66 ± 0.43	1.01 ± 0.22
DU2-SSC002	DU2-SSC002 (2-6)	11/05/09	2-6		3.13 ± 0.77	1.50 ± 0.36	1.11 ± 0.24
DU2-SSC003	DU2-SSC003 (2-6)	11/06/09	2-6		1.74 ± 0.43	1.65 ± 0.40	1.16 ± 0.25
DU2-SSC004	DU2-SSC004 (2-6)	11/06/09	2-6		1.72 ± 0.42	1.61 ± 0.39	1.24 ± 0.25
DU2-SSC005	DU2-SSC005 (2-6)	11/06/09	2-6		1.89 ± 0.47	1.58 ± 0.39	1.23 ± 0.26
DU2-SSC006	DU2-SSC006 (2-6)	11/06/09	2-6		1.82 ± 0.45	1.39 ± 0.35	1.60 ± 0.35
DU2-SSC007	DU2-SSC007 (2-6)	11/06/09	2-6		1.73 ± 0.43	1.89 ± 0.44	1.39 ± 0.31
DU2-SSC008	DU2-SSC008 (2-6)	11/09/09	2-6		2.01 ± 0.49	1.67 ± 0.42	1.58 ± 0.32
DU2-SSC206	DU2-SSC206 (2-6)	11/06/09	2-6		1.74 ± 0.43	1.59 ± 0.39	1.03 ± 0.22
2-6" Mean Concentration					1.99	1.63	1.25
2-6" 95% UCL on Mean Concentration					2.30	1.72	1.37

Bold Bolded result indicates positively identified compound.

TABLE 3b
DU 2 CHEMICAL DATA SUMMARY AND EVALUATION
AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0 - 2" Soil Background (95% UCL on Mean)	0.72	302	0.13	0.66	19.6
Residential Human Health Comparative Value (CV)[a]	3.1	772	0.64	5.3	58.6
Residential Human Health PRG[b]	NC	7200	NC	NC	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	860	68396	77	682	7969
Commercial/Industrial Worker PRG[b]	830	100000	NC	NC	NC
Construction Worker Comparative Value (CV)[a]	82	33346	375	251	3523
Construction Worker PRG[b]	39	49000	NC	NC	NC
0-2" Mean Concentration	10.3	480	0.25	2.9	30
0-2" 95% UCL on Mean Concentration	10.8	634	0.27	3.5	34

[a] Residential human health CV established as the 95% UCL on mean background concentration + the lower of the residential soil screening level (SSL) for direct exposure pathways or the homegrown produce ingestion pathway.

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-2" mean concentration exceeds the residential CV.

0-2" mean concentration exceeds residential and worker CVs.

0-2" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Cadmium	Fluoride	Thallium	Uranium	Vanadium
			Units		mg/kg	mg/kg	mg/kg	mg.kg	mg/kg
DU2-SSC001	DU2-SSC001 (0-2)	5-Nov-09	0-2		11 B	540 J-,B	0.28 T	3.9	25
DU2-SSC002	DU2-SSC002 (0-2)	5-Nov-09	0-2		11 B	500 J-,B	0.25 T	1.6	24
DU2-SSC003	DU2-SSC003 (0-2)	6-Nov-09	0-2		9.2 B	370 J-,B	0.24 T	1.5	22
DU2-SSC004	DU2-SSC004 (0-2)	6-Nov-09	0-2		11 B	970 J-,B	0.28 T	3.3	25
DU2-SSC005	DU2-SSC005 (0-2)	6-Nov-09	0-2		11 B	170 J-	0.27 T	3.8	35
DU2-SSC006	DU2-SSC006 (0-2)	6-Nov-09	0-2		8.8 B	360 J-	0.22 T	1.9	34
DU2-SSC006	DU2-SSC206 (0-2)	6-Nov-09	0-2		8.8 B	360 J-	0.23 T	3.0	35
DU2-SSC007	DU2-SSC007 (0-2)	6-Nov-09	0-2		10 B	480 J-	0.25 T	3.2	37
DU2-SSC008	DU2-SSC008 (0-2)	9-Nov-09	0-2		10 B	450 J-	0.24 T	4.5	36
0-2" Mean Concentration					10.3	480	0.25	2.9	30
0-2" 95% UCL on Mean Concentration					10.8	634	0.27	3.5	34
DU2-SSC001	DU2-SSC001 (2-6)	5-Nov-09	2-6		9.9 B	610 J-,B	0.28 T	3.0	25
DU2-SSC002	DU2-SSC002 (2-6)	5-Nov-09	2-6		11 B	650 J-,B	0.24 T	3.3	22
DU2-SSC003	DU2-SSC003 (2-6)	6-Nov-09	2-6		9.8 B	280 J-,B	0.26 T	3.5	23
DU2-SSC004	DU2-SSC004 (2-6)	6-Nov-09	2-6		9.5 B	730 J-,B	0.29 T	3.7	24
DU2-SSC005	DU2-SSC005 (2-6)	6-Nov-09	2-6		11 B	630 J-	0.25 T	3.7	36
DU2-SSC006	DU2-SSC206 (2-6)	6-Nov-09	2-6		9.7 B	280 J-	0.25 T	4.8	34
DU2-SSC006	DU2-SSC006 (2-6)	6-Nov-09	2-6		9.6 B	890 J-	0.25 T	4.2	36
DU2-SSC007	DU2-SSC007 (2-6)	6-Nov-09	2-6		10 B	490 J-	0.25 T	4.7	36
DU2-SSC008	DU2-SSC008 (2-6)	9-Nov-09	2-6		11 B	300 J-	0.26 T	3.1	37
2-6" Mean Concentration					10.2	534	0.26	3.7	30
2-6" 95% UCL on Mean Concentration					10.69	645	0.27	4.1	34

Bold Bolded result indicates positively identified compound.

T Analyte was positively identified but the reported concentration is estimated; reported concentration is less than the reporting limit, but greater than the method detection limit.

B Analyte detected in an associated blank.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 4a
DU3 RADIOLOGICAL DATA SUMMARY AND EVALUATION AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Lead-210	Radium-226	Uranium-238
Units	pCi/g	pCi/g	pCi/g
0-6" Soil Background (95% UCL on Mean)	1.46	1.21	0.96
Residential Human Health Comparative Value (CV)[a]	1.91	1.22	1.74
Residential Human Health PRG[b]	31.0	2.51	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	2.40	1.23	2.37
Commercial/Industrial Worker PRG[b]	67.2	3.75	NC
Construction Worker Comparative Value (CV)[a]	8.90	2.13	21.6
Construction Worker PRG[b]	615	104	NC
0-6" Mean Concentration	1.36	1.03	1.15
0-6" 95% UCL on Mean Concentration	1.43	1.14	1.23

[a] Human health CVs established as the 0-6"95% UCL on mean background concentration + receptor-specific soil screening level (SSL).

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-6" mean concentration exceeds the residential CV.
0-6" mean concentration exceeds residential and worker CVs.
0-6" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Lead-210	Radium-226	Uranium-238
				Units	pCi/g	pCi/g	pCi/g
0 - 2" Soil Background (95% UCL on Mean)					2.02	0.95	0.88
DU3-SSC001	DU3-SSC001 (0-2)	10/16/2009	0 - 2		1.44 ± 0.36	1.06 ± 0.22	1.1 ± 0.3
DU3-SSC002	DU3-SSC002 (0-2)	10/19/2009	0 - 2		1.13 ± 0.29	1.19 ± 0.25	1.28 ± 0.39
DU3-SSC003	DU3-SSC003 (0-2)	10/20/2009	0 - 2		1.63 ± 0.41	1.05 ± 0.22	1.05 ± 0.29
DU3-SSC004	DU3-SSC004 (0-2)	10/20/2009	0 - 2		1.39 ± 0.35	1.35 ± 0.28	1.4 ± 0.36
DU3-SSC005	DU3-SSC005 (0-2)	10/20/2009	0 - 2		1.44 ± 0.36	0.69 ± 0.17	1.2 ± 0.31
DU3-SSC006	DU3-SSC006 (0-2)	10/21/2009	0 - 2		1.25 ± 0.32	1.01 ± 0.21	0.99 ± 0.27
DU3-SSC007	DU3-SSC007 (0-2)	10/21/2009	0 - 2		1.55 ± 0.39	1.1 ± 0.25	0.89 ± 0.26
DU3-SSC007 Dup	DU3-SSC207 (0-2)	10/21/2009	0 - 2		1.45 ± 0.36	1.01 ± 0.24	1.12 ± 0.31
DU3-SSC008	DU3-SSC008 (0-2)	10/21/2009	0 - 2		1.34 ± 0.34	1.28 ± 0.29	1.14 ± 0.3
0-2" Mean Concentration					1.39	1.09	1.15
0-2" 95% UCL on Mean Concentration					1.49	1.22	1.24
2 - 6" Soil Background (95% UCL on Mean)					1.17	1.34	1.00
DU3-SSC001	DU3-SSC001 (2-6)	10/16/2009	2 - 6		1.35 ± 0.34	1.15 ± 0.25	1.08 ± 0.29
DU3-SSC002	DU3-SSC002 (2-6)	10/19/2009	2 - 6		1.29 ± 0.33	0.8 ± 0.18	1.08 ± 0.29
DU3-SSC003	DU3-SSC003 (2-6)	10/20/2009	2 - 6		1.49 ± 0.38	0.93 ± 0.2	1.13 ± 0.24
DU3-SSC004	DU3-SSC004 (2-6)	10/20/2009	2 - 6		1.38 ± 0.35	1.06 ± 0.24	1.21 ± 0.32
DU3-SSC005	DU3-SSC005 (2-6)	10/21/2009	2 - 6		1.33 ± 0.34	0.89 ± 0.19	1.34 ± 0.34
DU3-SSC006	DU3-SSC006 (2-6)	10/21/2009	2 - 6		1.29 ± 0.33	1.21 ± 0.25	1.18 ± 0.3
DU3-SSC007	DU3-SSC007 (2-6)	10/21/2009	2 - 6		1.43 ± 0.36	0.93 ± 0.19	1.21 ± 0.32
DU3-SSC007 Dup	DU3-SSC207 (2-6)	10/21/2009	2 - 6		1.28 ± 0.33	1.23 ± 0.27	1.14 ± 0.31
DU3-SSC008	DU3-SSC008 (2-6)	10/21/2009	2 - 6		1.22 ± 0.31	0.84 ± 0.2	1.04 ± 0.28
2-6" Mean Concentration					1.34	1.00	1.15
2-6" 95% UCL on Mean Concentration					1.39	1.10	1.22

Bold Bolded result indicates positively identified compound.

TABLE 4b
DU 3 CHEMICAL DATA SUMMARY AND EVALUATION
AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0 - 2" Soil Background (95% UCL on Mean)	0.72	302	0.13	0.66	19.6
Residential Human Health Comparative Value (CV)[a]	3.1	772	0.64	5.3	58.6
Residential Human Health PRG[b]	NC	7200	NC	NC	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	860	68396	77	682	7969
Commercial/Industrial Worker PRG[b]	830	100000	NC	NC	NC
Construction Worker Comparative Value (CV)[a]	82	33346	375	251	3523
Construction Worker PRG[b]	39	49000	NC	NC	NC
0-2" Mean Concentration	4.6	353	0.19	3.4	23
0-2" 95% UCL on Mean Concentration	5.0	412	0.20	3.7	24

[a] Residential human health CV established as the 95% UCL on mean background concentration + the lower of the residential soil screening level (SSL) for direct exposure pathways or the homegrown produce ingestion pathway.

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-2" mean concentration exceeds the residential CV.
0-2" mean concentration exceeds residential and worker CVs.
0-2" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Cadmium	Fluoride	Thallium	Uranium	Vanadium
			Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DU3-SSC001	DU3-SSC001 (0-2)	16-Oct-09	0-2		4.4	350 J-	0.18 T	3.3	23
DU3-SSC002	DU3-SSC002 (0-2)	19-Oct-09	0-2		3.5	360 J-	0.18 T	3.8	21
DU3-SSC003	DU3-SSC003 (0-2)	20-Oct-09	0-2		5.5	490 J-	0.2 T	3.1	23
DU3-SSC004	DU3-SSC004 (0-2)	20-Oct-09	0-2		4.6	230 J-	0.2 T	4.2	24
DU3-SSC005	DU3-SSC005 (0-2)	20-Oct-09	0-2		4.8	240 J-	0.19 T	3.6	25
DU3-SSC006	DU3-SSC006 (0-2)	21-Oct-09	0-2		4.9	320 J-	0.19 T	3.0	22
DU3-SSC007	DU3-SSC007 (0-2)	21-Oct-09	0-2		4.5	440 J-	0.18 T	2.7	22
DU3-SSC007	DU3-SSC207 (0-2)	21-Oct-09	0-2		4.2	400 J-	0.2 T	3.4	23
DU3-SSC008	DU3-SSC008 (0-2)	21-Oct-09	0-2		5.1	410 J-	0.2 T	3.4	23
0-2" Mean Concentration					4.6	353	0.19	3.4	23
0-2" 95% UCL on Mean Concentration					5.0	412	0.20	3.7	24
DU3-SSC001	DU3-SSC001 (2-6)	16-Oct-09	2-6		4.3	370 J-	0.19 T	3.2	24
DU3-SSC002	DU3-SSC002 (2-6)	19-Oct-09	2-6		3.6	250 J-	0.17 T	3.2	21
DU3-SSC003	DU3-SSC003 (2-6)	20-Oct-09	2-6		6.4	400 J-	0.21 T	3.4	26
DU3-SSC004	DU3-SSC004 (2-6)	20-Oct-09	2-6		4.9	170 J-	0.19 T	3.6	23
DU3-SSC005	DU3-SSC005 (2-6)	21-Oct-09	2-6		4.6	270 J-	0.2 T	4.0	26
DU3-SSC006	DU3-SSC006 (2-6)	21-Oct-09	2-6		5	240 J-	0.19 T	3.5	23
DU3-SSC007	DU3-SSC007 (2-6)	21-Oct-09	2-6		4.5	340 J-	0.17 T	3.6	22
DU3-SSC007	DU3-SSC207 (2-6)	21-Oct-09	2-6		4.3	290 J-	0.19 T	3.4	23
DU3-SSC008	DU3-SSC008 (2-6)	21-Oct-09	2-6		5.1	230 J-	0.2 T	3.1	24
2-6" Mean Concentration					4.8	281	0.19	3.4	24
2-6" 95% UCL on Mean Concentration					5.3	332	0.20	3.6	25

Bold Bolded result indicates positively identified compound.

T Analyte was positively identified but the reported concentration is estimated; reported concentration is less than the reporting limit, but greater than the method detection limit.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 5a
DU4 RADIOLOGICAL DATA SUMMARY AND EVALUATION AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Lead-210	Radium-226	Uranium-238
Units	pCi/g	pCi/g	pCi/g
0-6" Soil Background (95% UCL on Mean)	1.46	1.21	0.96
Residential Human Health Comparative Value (CV)[a]	1.91	1.22	1.74
Residential Human Health PRG[b]	31.0	2.51	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	2.40	1.23	2.37
Commercial/Industrial Worker PRG[b]	67.2	3.75	NC
Construction Worker Comparative Value (CV)[a]	8.90	2.13	21.6
Construction Worker PRG[b]	615	104	NC
0-6" Mean Concentration	1.30	0.98	1.01
0-6" 95% UCL on Mean Concentration	1.36	1.13	1.08

[a] Human health CVs established as the 0-6"95% UCL on mean background concentration + receptor-specific soil screening level (SSL).

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-6" mean concentration exceeds the residential CV.

0-6" mean concentration exceeds residential and worker CVs.

0-6" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Analyte					Lead-210	Radium-226	Uranium-238
Units					pCi/g	pCi/g	pCi/g
0 - 2" Soil Background (95% UCL on Mean)					2.02	0.95	0.88
Location Identification	Field Sample Identification	Date Collected	Depth (in)				
DU4-SSC001	DU4-SSC001 (0-2)	10/14/2009	0 - 2		1.61 ± 0.41	1.22 ± 0.27	1.11 ± 0.31
DU4-SSC002	DU4-SSC002 (0-2)	10/14/2009	0 - 2		1.36 ± 0.34	0.83 ± 0.2	1.08 ± 0.29
DU4-SSC003	DU4-SSC003 (0-2)	10/14/2009	0 - 2		1.44 ± 0.36	0.81 ± 0.19	1.17 ± 0.31
DU4-SSC004	DU4-SSC004 (0-2)	10/15/2009	0 - 2		1.35 ± 0.34	0.99 ± 0.21	1.01 ± 0.3
DU4-SSC005	DU4-SSC005 (0-2)	10/16/2009	0 - 2		1.62 ± 0.41	0.65 ± 0.18	1.23 ± 0.36
DU4-SSC006	DU4-SSC006 (0-2)	10/15/2009	0 - 2		1.27 ± 0.32	0.53 ± 0.16	0.87 ± 0.27
DU4-SSC007	DU4-SSC007 (0-2)	10/15/2009	0 - 2		1.38 ± 0.35	1 ± 0.23	1.02 ± 0.29
DU4-SSC008	DU4-SSC008 (0-2)	10/16/2009	0 - 2		1.53 ± 0.38	1.21 ± 0.25	1.08 ± 0.29
DU4-SSC008 Dup	DU4-SSC208 (0-2)	10/16/2009	0 - 2		1.37 ± 0.35	1.37 ± 0.28	1.27 ± 0.35
0-2" Mean Concentration					1.44	0.92	1.08
0-2" 95% UCL on Mean Concentration					1.52	1.09	1.16
2 - 6" Soil Background (95% UCL on Mean)					1.17	1.34	1.00
DU4-SSC001	DU4-SSC001 (2-6)	10/14/2009	2 - 6		1.28 ± 0.32	1.06 ± 0.23	1.14 ± 0.3
DU4-SSC002	DU4-SSC002 (2-6)	10/14/2009	2 - 6		1.16 ± 0.3	1.24 ± 0.28	0.96 ± 0.27
DU4-SSC003	DU4-SSC003 (2-6)	10/15/2009	2 - 6		1.26 ± 0.32	1.14 ± 0.25	0.79 ± 0.23
DU4-SSC004	DU4-SSC004 (2-6)	10/15/2009	2 - 6		1.13 ± 0.29	0.75 ± 0.2	0.93 ± 0.28
DU4-SSC005	DU4-SSC005 (2-6)	10/16/2009	2 - 6		1.32 ± 0.34	0.8 ± 0.19	1.02 ± 0.28
DU4-SSC006	DU4-SSC006 (2-6)	10/15/2009	2 - 6		1.29 ± 0.33	1.25 ± 0.28	0.97 ± 0.28
DU4-SSC007	DU4-SSC007 (2-6)	10/16/2009	2 - 6		1.22 ± 0.31	0.85 ± 0.19	0.96 ± 0.29
DU4-SSC008	DU4-SSC008 (2-6)	10/16/2009	2 - 6		1.3 ± 0.33	0.87 ± 0.21	1.09 ± 0.31
DU4-SSC008 Dup	DU4-SSC208 (2-6)	10/16/2009	2 - 6		1.16 ± 0.3	1.15 ± 0.24	0.95 ± 0.27
2-6" Mean Concentration					1.24	1.01	0.97
2-6" 95% UCL on Mean Concentration					1.28	1.14	1.04

Bold Bolded result indicates positively identified compound.

TABLE 5b
DU 4 CHEMICAL DATA SUMMARY AND EVALUATION
AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0 - 2" Soil Background (95% UCL on Mean)	0.72	302	0.13	0.66	19.6
Residential Human Health Comparative Value (CV)[a]	3.1	772	0.64	5.3	58.6
Residential Human Health PRG[b]	NC	7200	NC	NC	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	860	68396	77	682	7969
Commercial/Industrial Worker PRG[b]	830	100000	NC	NC	NC
Construction Worker Comparative Value (CV)[a]	82	33346	375	251	3523
Construction Worker PRG[b]	39	49000	NC	NC	NC
0-2" Mean Concentration	5.2	370	0.19	3.2	24
0-2" 95% UCL on Mean Concentration	5.6	441	0.20	3.5	25

[a] Residential human health CV established as the 95% UCL on mean background concentration + the lower of the residential soil screening level (SSL) for direct exposure pathways or the homegrown produce ingestion pathway.

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-2" mean concentration exceeds the residential CV.
0-2" mean concentration exceeds residential and worker CVs.
0-2" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Cadmium	Fluoride	Thallium	Uranium	Vanadium
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DU4-SSC001	DU4-SSC001 (0-2)	14-Oct-09	0-2		**5.6**	**530 J-**	**0.2 T**	**3.3**	**27**
DU4-SSC002	DU4-SSC002 (0-2)	14-Oct-09	0-2		**5.1**	**400 J-**	**0.18 T**	**3.2**	**22**
DU4-SSC003	DU4-SSC003 (0-2)	14-Oct-09	0-2		**5**	**510 J-**	**0.19 T**	**3.5**	**25**
DU4-SSC004	DU4-SSC004 (0-2)	15-Oct-09	0-2		**4.4**	**280 J-**	**0.19 T**	**3.0**	**24**
DU4-SSC005	DU4-SSC005 (0-2)	16-Oct-09	0-2		**5.8**	**260 J-**	**0.22 T**	**3.7**	**24**
DU4-SSC006	DU4-SSC006 (0-2)	15-Oct-09	0-2		**4.5**	**380 J-**	**0.17 T**	**2.6**	**20**
DU4-SSC007	DU4-SSC007 (0-2)	15-Oct-09	0-2		**5.5**	**340 J-**	**0.18 T**	**3.1**	**24**
DU4-SSC008	DU4-SSC008 (0-2)	16-Oct-09	0-2		**5.8**	**230 J-**	**0.18 T**	**3.2**	**23**
DU4-SSC008	DU4-SSC208 (0-2)	16-Oct-09	0-2		**5.8**	**290 J-**	**0.19 T**	**3.8**	**24**
0-2" Mean Concentration					**5.2**	**370**	**0.19**	**3.2**	**24**
0-2" 95% UCL on Mean Concentration					**5.6**	**441**	**0.20**	**3.5**	**25**
DU4-SSC001	DU4-SSC001 (2-6)	14-Oct-09	2-6		**4**	**360 J-**	**0.17 T**	**3.4**	**20**
DU4-SSC002	DU4-SSC002 (2-6)	14-Oct-09	2-6		**3.3**	**340 J-**	**0.16 T**	**2.9**	**19**
DU4-SSC003	DU4-SSC003 (2-6)	15-Oct-09	2-6		**3.7**	**320 J-**	**0.16 T**	**2.4**	**19**
DU4-SSC004	DU4-SSC004 (2-6)	15-Oct-09	2-6		**3.7**	**270 J-**	**0.17 T**	**2.8**	**22**
DU4-SSC005	DU4-SSC005 (2-6)	16-Oct-09	2-6		**4.3**	**210 J-**	**0.18 T**	**3.1**	**22**
DU4-SSC006	DU4-SSC006 (2-6)	15-Oct-09	2-6		**3.6**	**200 J-**	**0.17 T**	**2.9**	**20**
DU4-SSC007	DU4-SSC007 (2-6)	16-Oct-09	2-6		**4.4**	**450 J-**	**0.17 T**	**2.9**	**22**
DU4-SSC008	DU4-SSC008 (2-6)	16-Oct-09	2-6		**3.4**	**260 J-**	**0.16 T**	**3.3**	**21**
DU4-SSC008	DU4-SSC208 (2-6)	16-Oct-09	2-6		**3.6**	**270 J-**	**0.16 T**	**2.8**	**20**
2-6" Mean Concentration					**3.8**	**302**	**0.17**	**2.9**	**21**
2-6" 95% UCL on Mean Concentration					**4.1**	**358**	**0.17**	**3.1**	**21**

Bold Bolded result indicates positively identified compound.

T Analyte was positively identified but the reported concentration is estimated; reported concentration is less than the reporting limit, but greater than the method detection limit.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 6a
DU5 RADIOLOGICAL DATA SUMMARY AND EVALUATION AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Lead-210	Radium-226	Uranium-238
Units	pCi/g	pCi/g	pCi/g
0-6" Soil Background (95% UCL on Mean)	1.46	1.21	0.96
Residential Human Health Comparative Value (CV)[a]	1.91	1.22	1.74
Residential Human Health PRG[b]	31.0	2.51	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	2.40	1.23	2.37
Commercial/Industrial Worker PRG[b]	67.2	3.75	NC
Construction Worker Comparative Value (CV)[a]	8.90	2.13	21.6
Construction Worker PRG[b]	615	104	NC
0-6" Mean Concentration	1.46	1.04	1.19
0-6" 95% UCL on Mean Concentration	1.52	1.16	1.29

[a] Human health CVs established as the 0-6"95% UCL on mean background concentration + receptor-specific soil screening level (SSL).

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-6" mean concentration exceeds the residential CV.

0-6" mean concentration exceeds residential and worker CVs.

0-6" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Analyte					Lead-210	Radium-226	Uranium-238
Units					pCi/g	pCi/g	pCi/g
0 - 2" Soil Background (95% UCL on Mean)					2.02	0.95	0.88
Location Identification	Field Sample Identification	Date Collected	Depth (in)				
DU5-SSC001	DU5-SSC001 (0-2)	10/13/2009	0 - 2		1.41 ± 0.36 B	1.12 ± 0.25	1.06 ± 0.28
DU5-SSC001	DU5-SSC201 (0-2)	10/13/2009	0 - 2		1.36 ± 0.35 B	0.79 ± 0.21	1.22 ± 0.32
DU5-SSC002	DU5-SSC002 (0-2)	10/13/2009	0 - 2		1.69 ± 0.42 B	1.23 ± 0.25	1.22 ± 0.37
DU5-SSC003	DU5-SSC003 (0-2)	10/8/2009	0 - 2		1.34 ± 0.34 B	1.05 ± 0.23	0.95 ± 0.27
DU5-SSC004	DU5-SSC004 (0-2)	10/13/2009	0 - 2		1.54 ± 0.39 B	1.39 ± 0.3	1.03 ± 0.28
DU5-SSC005	DU5-SSC005 (0-2)	10/9/2009	0 - 2		1.25 ± 0.32 B	0.84 ± 0.19	1.14 ± 0.34
DU5-SSC006	DU5-SSC006 (0-2)	10/13/2009	0 - 2		1.6 ± 0.4 B	1.06 ± 0.22	1.21 ± 0.31
DU5-SSC007	DU5-SSC007 (0-2)	10/13/2009	0 - 2		1.48 ± 0.37 B	0.97 ± 0.21	1.23 ± 0.32
DU5-SSC008	DU5-SSC008 (0-2"	10/14/2009	0 - 2		1.44 ± 0.36	0.79 ± 0.19	1.16 ± 0.31
0-2" Mean Concentration					1.47	1.04	1.14
0-2" 95% UCL on Mean Concentration					1.56	1.17	1.20
2 - 6" Soil Background (95% UCL on Mean)					1.17	1.34	1.00
DU5-SSC001	DU5-SSC001 (2-6)	10/13/2009	2 - 6		1.4 ± 0.35 B	0.83 ± 0.21	1.31 ± 0.34
DU5-SSC001	DU5-SSC201 (2-6)	10/13/2009	2 - 6		1.49 ± 0.38 B	0.98 ± 0.23	1.26 ± 0.32
DU5-SSC002	DU5-SSC002 (2-6)	10/13/2009	2 - 6		1.43 ± 0.36 B	1.16 ± 0.25	1.46 ± 0.41
DU5-SSC003	DU5-SSC003 (2-6)	10/8/2009	2 - 6		1.5 ± 0.38 B	1.16 ± 0.26	1.06 ± 0.3
DU5-SSC004	DU5-SSC004 (2-6)	10/13/2009	2 - 6		1.46 ± 0.37 B	1.2 ± 0.26	1.05 ± 0.29
DU5-SSC005	DU5-SSC005 (2-6)	10/9/2009	2 - 6		1.31 ± 0.33 B	0.83 ± 0.2	1.05 ± 0.3
DU5-SSC006	DU5-SSC006 (2-6)	10/13/2009	2 - 6		1.58 ± 0.4 B	0.96 ± 0.22	1.16 ± 0.32
DU5-SSC007	DU5-SSC007 (2-6"	10/14/2009	2 - 6		1.49 ± 0.37	1.22 ± 0.27	1.48 ± 0.41
DU5-SSC008	DU5-SSC008 (2-6"	10/14/2009	2 - 6		1.42 ± 0.36	0.93 ± 0.22 J-	1.21 ± 0.31
2-6" Mean Concentration					1.45	1.05	1.22
2-6" 95% UCL on Mean Concentration					1.51	1.15	1.34

Bold Bolded result indicates positively identified compound.

B Analyte detected in an associated blank.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 6b
DU 5 CHEMICAL DATA SUMMARY AND EVALUATION
AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0 - 2" Soil Background (95% UCL on Mean)	0.72	302	0.13	0.66	19.6
Residential Human Health Comparative Value (CV)[a]	3.1	772	0.64	5.3	58.6
Residential Human Health PRG[b]	NC	7200	NC	NC	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	860	68396	77	682	7969
Commercial/Industrial Worker PRG[b]	830	100000	NC	NC	NC
Construction Worker Comparative Value (CV)[a]	82	33346	375	251	3523
Construction Worker PRG[b]	39	49000	NC	NC	NC
0-2" Mean Concentration	5.3	326	0.20	3.4	25
0-2" 95% UCL on Mean Concentration	5.6	376	0.21	3.6	27

[a] Residential human health CV established as the 95% UCL on mean background concentration + the lower of the residential soil screening level (SSL) for direct exposure pathways or the homegrown produce ingestion pathway.

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-2" mean concentration exceeds the residential CV.
0-2" mean concentration exceeds residential and worker CVs.
0-2" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Cadmium	Fluoride	Thallium	Uranium	Vanadium
			Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DU5-SSC001	DU5-SSC001 (0-2)	13-Oct-09	0-2		5.5	210 J-	0.21 T	3.2	27 J
DU5-SSC001	DU5-SSC201 (0-2)	13-Oct-09	0-2		5.6	240 J-	0.2 T	3.6	26
DU5-SSC002	DU5-SSC002 (0-2)	13-Oct-09	0-2		5.9	350 J-	0.21 T	3.6	26
DU5-SSC003	DU5-SSC003 (0-2)	8-Oct-09	0-2		4.9	290 J-	0.19 T	2.8	25
DU5-SSC004	DU5-SSC004 (0-2)	13-Oct-09	0-2		5.4	310 J-	0.22 T	3.1	27
DU5-SSC005	DU5-SSC005 (0-2)	9-Oct-09	0-2		5.1	460 J-	0.2 T	3.4	26
DU5-SSC006	DU5-SSC006 (0-2)	13-Oct-09	0-2		5.5	390 J-	0.2 T	3.6	27
DU5-SSC007	DU5-SSC007 (0-2)	13-Oct-09	0-2		5.4	320 J-	0.19 T	3.7	25
DU5-SSC008	DU5-SSC008 (0-2)	14-Oct-09	0-2		5	260 J-	0.21 T	3.5	16
0-2" Mean Concentration					5.3	326	0.20	3.4	25
0-2" 95% UCL on Mean Concentration					5.6	376	0.21	3.6	27
DU5-SSC001	DU5-SSC001 (2-6)	13-Oct-09	2-6		5.6	610 J-	0.2 T	3.9	27
DU5-SSC001	DU5-SSC201 (2-6)	13-Oct-09	2-6		5.5	290 J-	0.19 T	3.8	24
DU5-SSC002	DU5-SSC002 (2-6)	13-Oct-09	2-6		5.4	290 J-	0.2 T	4.4	26
DU5-SSC003	DU5-SSC003 (2-6)	8-Oct-09	2-6		5	440 J-	0.18 T	3.2	24
DU5-SSC004	DU5-SSC004 (2-6)	13-Oct-09	2-6		5.4	290 J-	0.19 T	3.1	25
DU5-SSC005	DU5-SSC005 (2-6)	9-Oct-09	2-6		4.4	370 J-	0.2 T	3.1	26
DU5-SSC006	DU5-SSC006 (2-6)	13-Oct-09	2-6		5.9	220 J-	0.2 T	3.5	27
DU5-SSC007	DU5-SSC007 (2-6)	14-Oct-09	2-6		6.2	250 J-	0.19 T	4.4	26
DU5-SSC008	DU5-SSC008 (2-6)	14-Oct-09	2-6		5.2	350 J-	0.2 T	3.6	17
2-6" Mean Concentration					5.4	333	0.19	3.6	25
2-6" 95% UCL on Mean Concentration					5.7	389	0.20	4.0	27

Bold Bolded result indicates positively identified compound.

T Analyte was positively identified but the reported concentration is estimated; reported concentration is less than the reporting limit, but greater than the method detection limit.

J Data are estimated due to associated quality control data.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 7a
DU6 RADIOLOGICAL DATA SUMMARY AND EVALUATION AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Lead-210	Radium-226	Uranium-238
Units	pCi/g	pCi/g	pCi/g
0-6" Soil Background (95% UCL on Mean)	1.46	1.21	0.96
Residential Human Health Comparative Value (CV)[a]	1.91	1.22	1.74
Residential Human Health PRG[b]	31.0	2.51	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	2.40	1.23	2.37
Commercial/Industrial Worker PRG[b]	67.2	3.75	NC
Construction Worker Comparative Value (CV)[a]	8.90	2.13	21.6
Construction Worker PRG[b]	615	104	NC
0-6" Mean Concentration	1.32	0.93	0.96
0-6" 95% UCL on Mean Concentration	1.39	1.04	1.02

[a] Human health CVs established as the 0-6"95% UCL on mean background concentration + receptor-specific soil screening level (SSL).

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-6" mean concentration exceeds the residential CV.

0-6" mean concentration exceeds residential and worker CVs.

0-6" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Analyte					Lead-210	Radium-226	Uranium-238
Units					pCi/g	pCi/g	pCi/g
0 - 2" Soil Background (95% UCL on Mean)					2.02	0.95	0.88
Location Identification	Field Sample Identification	Date Collected	Depth (in)				
DU6-SSC001	DU6-SSC001 (0-2)	11/04/10	0-2		**1.66 ± 0.42**	**1.12 ± 0.23**	**0.99 ± 0.28**
DU6-SSC002	DU6-SSC002 (0-2)	11/04/10	0-2		**1.95 ± 0.48**	**0.82 ± 0.19**	**1.11 ± 0.3**
DU6-SSC202	DU6-SSC202 (0-2)	11/04/10	0-2		**1.7 ± 0.43**	**0.71 ± 0.17**	**1.13 ± 0.34**
DU6-SSC003	DU6-SSC003 (0-2)	11/04/10	0-2		**1.75 ± 0.51**	**1.09 ± 0.23**	**1.12 ± 0.31**
DU6-SSC004	DU6-SSC004 (0-2)	11/04/10	0-2		**1.84 ± 0.46**	**0.86 ± 0.2**	**0.9 ± 0.26**
DU6-SSC005	DU6-SSC005 (0-2)	11/05/09	0-2		**1.55 ± 0.39**	**0.97 ± 0.21**	**0.95 ± 0.22**
DU6-SSC006	DU6-SSC006 (0-2)	11/05/09	0-2		**1.7 ± 0.43**	**0.97 ± 0.22**	**1.12 ± 0.24**
DU6-SSC007	DU6-SSC007 (0-2)	11/05/09	0-2		**1.63 ± 0.41**	**0.92 ± 0.22**	**1 ± 0.28**
DU6-SSC008	DU6-SSC008 (0-2)	11/05/09	0-2		**1.55 ± 0.39**	**1.08 ± 0.23**	**1.12 ± 0.3**
0-2" Mean Concentration					1.69	0.97	1.04
0-2" 95% UCL on Mean Concentration					1.76	1.05	1.10
2 - 6" Soil Background (95% UCL on Mean)					1.17	1.34	1.00
DU6-SSC001	DU6-SSC001 (2-6)	11/04/10	2-6		**1.07 ± 0.28**	**0.81 ± 0.2**	**0.89 ± 0.26**
DU6-SSC002	DU6-SSC002 (2-6)	11/04/10	2-6		**1.15 ± 0.29**	**1.12 ± 0.25**	**0.71 ± 0.22**
DU6-SSC002	DU6-SSC202 (2-6)	11/04/10	2-6		**1 ± 0.35**	**0.98 ± 0.23**	**0.96 ± 0.27**
DU6-SSC003	DU6-SSC003 (2-6)	11/04/10	2-6		**1.15 ± 0.3**	**1.2 ± 0.28**	**1.03 ± 0.29**
DU6-SSC004	DU6-SSC004 (2-6)	11/05/09	2-6		**1.33 ± 0.34**	**1.04 ± 0.23**	**0.81 ± 0.25**
DU6-SSC005	DU6-SSC005 (2-6)	11/05/09	2-6		**1 ± 0.26**	**0.69 ± 0.17**	**0.98 ± 0.33**
DU6-SSC006	DU6-SSC006 (2-6)	11/05/09	2-6		**1.19 ± 0.3**	**0.97 ± 0.21**	**0.98 ± 0.29**
DU6-SSC007	DU6-SSC007 (2-6)	11/05/09	2-6		**1.11 ± 0.29**	**0.84 ± 0.19**	**0.86 ± 0.25**
DU6-SSC008	DU6-SSC008 (2-6)	11/05/09	2-6		**1.13 ± 0.29**	**0.72 ± 0.16**	**1 ± 0.27**
2-6" Mean Concentration					1.13	0.92	0.92
2-6" 95% UCL on Mean Concentration					1.20	1.04	0.98

Bold Bolded result indicates positively identified compound.

TABLE 7b
DU 6 CHEMICAL DATA SUMMARY AND EVALUATION
AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0 - 2" Soil Background (95% UCL on Mean)	0.72	302	0.13	0.66	19.6
Residential Human Health Comparative Value (CV)[a]	3.1	772	0.64	5.3	58.6
Residential Human Health PRG[b]	NC	7200	NC	NC	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	860	68396	77	682	7969
Commercial/Industrial Worker PRG[b]	830	100000	NC	NC	NC
Construction Worker Comparative Value (CV)[a]	82	33346	375	251	3523
Construction Worker PRG[b]	39	49000	NC	NC	NC
0-2" Mean Concentration	2.1	203	0.15	3.1	13
0-2" 95% UCL on Mean Concentration	2.3	247	0.15	3.3	13

[a] Residential human health CV established as the 95% UCL on mean background concentration + the lower of the residential soil screening level (SSL) for direct exposure pathways or the homegrown produce ingestion pathway.

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-2" mean concentration exceeds the residential CV.
0-2" mean concentration exceeds residential and worker CVs.
0-2" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Cadmium	Fluoride	Thallium	Uranium	Vanadium
				Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DU6-SSC001	DU6-SSC001 (0-2)	4-Nov-09	0-2		**2.3 B**	**240 J-**	**0.15 T**	**3.0**	**13**
DU6-SSC002	DU6-SSC002 (0-2)	4-Nov-09	0-2		**2.3 B**	**240 J-**	**0.15 T**	**3.3**	**13 J-**
DU6-SSC002	DU6-SSC202 (0-2)	4-Nov-09	0-2		**2.2 B**	**140 J-**	**0.14 T**	**3.4**	**12**
DU6-SSC003	DU6-SSC003 (0-2)	4-Nov-09	0-2		**1.8 B**	**160 J-**	**0.14 T**	**3.4**	**12**
DU6-SSC004	DU6-SSC004 (0-2)	4-Nov-09	0-2		**2.4 B**	**340 J-**	**0.16 T**	**2.7**	**13 J-**
DU6-SSC005	DU6-SSC005 (0-2)	5-Nov-09	0-2		**2.1 B**	**140 J-**	**0.15 T**	**2.8**	**13**
DU6-SSC006	DU6-SSC006 (0-2)	5-Nov-09	0-2		**2.3 B**	**140 J-**	**0.14 T**	**3.4**	**13**
DU6-SSC007	DU6-SSC007 (0-2)	5-Nov-09	0-2		**2 B**	**230 J-**	**0.16 T**	**3.0**	**13**
DU6-SSC008	DU6-SSC008 (0-2)	5-Nov-09	0-2		**1.9 B**	**180 J-**	**0.14 T**	**3.4**	**13**
0-2" Mean Concentration					**2.1**	**203**	**0.15**	**3.1**	**13**
0-2" 95% UCL on Mean Concentration					**2.3**	**247**	**0.15**	**3.3**	**13**
DU6-SSC001	DU6-SSC001 (2-6)	4-Nov-09	2-6		**1.1 B**	**160 J-**	**0.14 T**	**2.7**	**11**
DU6-SSC002	DU6-SSC002 (2-6)	4-Nov-09	2-6		**0.96 B**	**99 J-**	**0.14 T**	**2.1**	**12 J-**
DU6-SSC002	DU6-SSC202 (2-6)	4-Nov-09	2-6		**0.96 B**	**130 J-**	**0.13 T**	**2.9**	**11**
DU6-SSC003	DU6-SSC003 (2-6)	4-Nov-09	2-6		**1.2 B**	**170 J-**	**0.14 T**	**3.1**	**12**
DU6-SSC004	DU6-SSC004 (2-6)	5-Nov-09	2-6		**1.2 B**	**280 J-**	**0.14 T**	**2.4**	**12**
DU6-SSC005	DU6-SSC005 (2-6)	5-Nov-09	2-6		**0.9 B**	**170 J-**	**0.13 T**	**2.9**	**11**
DU6-SSC006	DU6-SSC006 (2-6)	5-Nov-09	2-6		**1.2 B**	**180 J-**	**0.13 T**	**2.9**	**12**
DU6-SSC007	DU6-SSC007 (2-6)	5-Nov-09	2-6		**0.98 B**	**190 J-**	**0.13 T**	**2.6**	**11**
DU6-SSC008	DU6-SSC008 (2-6)	5-Nov-09	2-6		**1.1 B**	**150 J-**	**0.14 T**	**3.0**	**13**
2-6" Mean Concentration					**1.1**	**177**	**0.14**	**2.8**	**12**
2-6" 95% UCL on Mean Concentration					**1.2**	**209**	**0.14**	**2.9**	**12**

Bold Bolded result indicates positively identified compound.

T Analyte was positively identified but the reported concentration is estimated; reported concentration is less than the reporting limit, but greater than the method detection limit.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 8a
DU7 RADIOLOGICAL DATA SUMMARY AND EVALUATION AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Lead-210	Radium-226	Uranium-238
Units	pCi/g	pCi/g	pCi/g
0-6" Soil Background (95% UCL on Mean)	1.46	1.21	0.96
Residential Human Health Comparative Value (CV)[a]	1.91	1.22	1.74
Residential Human Health PRG[b]	31.0	2.51	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	2.40	1.23	2.37
Commercial/Industrial Worker PRG[b]	67.2	3.75	NC
Construction Worker Comparative Value (CV)[a]	8.90	2.13	21.6
Construction Worker PRG[b]	615	104	NC
0-6" Mean Concentration	1.37	1.00	1.16
0-6" 95% UCL on Mean Concentration	1.52	1.14	1.46

[a] Human health CVs established as the 0-6"95% UCL on mean background concentration + receptor-specific soil screening level (SSL).

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-6" mean concentration exceeds the residential CV.

0-6" mean concentration exceeds residential and worker CVs.

0-6" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Lead-210	Radium-226	Uranium-238
				Units	pCi/g	pCi/g	pCi/g
0 - 2" Soil Background (95% UCL on Mean)					2.02	0.95	0.88
DU7-SSC001	DU7-SSC001 (0-2)	11/03/09	0-2		**1.45 ± 0.36**	**0.83 ± 0.27**	**1.06 ± 0.23**
DU7-SSC002	DU7-SSC002 (0-2)	11/03/09	0-2		**2.39 ± 0.59**	**1.96 ± 0.47**	**1.81 ± 0.36**
DU7-SSC003	DU7-SSC003 (0-2)	11/04/10	0-2		**1.65 ± 0.41**	**1.05 ± 0.29**	**0.70 ± 0.16**
DU7-SSC003	DU7-SSC203 (0-2)	11/04/10	0-2		**1.68 ± 0.42**	**0.97 ± 0.27**	**1.27 ± 0.25**
DU7-SSC004	DU7-SSC004 (0-2)	11/03/09	0-2		**1.67 ± 0.42**	**1.02 ± 0.30**	**0.90 ± 0.19**
DU7-SSC005	DU7-SSC005 (0-2)	11/04/10	0-2		**2.09 ± 0.52**	**0.89 ± 0.26**	**1.01 ± 0.22**
DU7-SSC006	DU7-SSC006 (0-2)	11/03/09	0-2		**1.35 ± 0.34**	**0.92 ± 0.27**	**0.52 ± 0.13**
DU7-SSC007	DU7-SSC007 (0-2)	11/03/09	0-2		**1.51 ± 0.38**	**0.98 ± 0.29**	**0.97 ± 0.20**
DU7-SSC008	DU7-SSC008 (0-2)	11/03/09	0-2		**1.84 ± 0.46**	**0.95 ± 0.27**	**0.76 ± 0.17**
0-2" Mean Concentration					1.75	1.07	1.00
0-2" 95% UCL on Mean Concentration					1.98	1.32	1.25
2 - 6" Soil Background (95% UCL on Mean)					1.17	1.34	1.00
DU7-SSC001	DU7-SSC001 (2-6)	11/03/09	2-6		**0.98 ± 0.26**	**0.83 ± 0.25**	**1.07 ± 0.24**
DU7-SSC002	DU7-SSC002 (2-6)	11/03/09	2-6		**1.47 ± 0.37**	**1.00 ± 0.28**	**1.86 ± 0.36**
DU7-SSC003	DU7-SSC003 (2-6)	11/04/10	2-6		**1.2 ± 0.31**	**0.91 ± 0.27**	**1.11 ± 0.25**
DU7-SSC003	DU7-SSC203 (2-6)	11/04/10	2-6		**1.27 ± 0.33**	**0.84 ± 0.24**	**0.96 ± 0.23**
DU7-SSC004	DU7-SSC004 (2-6)	11/04/10	2-6		**1.13 ± 0.29**	**0.86 ± 0.26**	**1.09 ± 0.23**
DU7-SSC005	DU7-SSC005 (2-6)	11/04/10	2-6		**1.05 ± 0.27**	**0.93 ± 0.26**	**1.12 ± 0.24**
DU7-SSC006	DU7-SSC006 (2-6)	11/03/09	2-6		**1.26 ± 0.32**	**0.96 ± 0.27**	**0.88 ± 0.19**
DU7-SSC007	DU7-SSC007 (2-6)	11/03/09	2-6		**1.17 ± 0.3**	**1.18 ± 0.31**	**0.74 ± 0.19**
DU7-SSC008	DU7-SSC008 (2-6)	11/03/09	2-6		**1.21 ± 0.31**	**1.14 ± 0.32**	**2.13 ± 0.41**
2-6" Mean Concentration					1.19	0.97	1.24
2-6" 95% UCL on Mean Concentration					1.29	1.06	1.57

Bold Bolded result indicates positively identified compound.

TABLE 8b
DU 7 CHEMICAL DATA SUMMARY AND EVALUATION
AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0 - 2" Soil Background (95% UCL on Mean)	0.72	302	0.13	0.66	19.6
Residential Human Health Comparative Value (CV)[a]	3.1	772	0.64	5.3	58.6
Residential Human Health PRG[b]	NC	7200	NC	NC	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	860	68396	77	682	7969
Commercial/Industrial Worker PRG[b]	830	100000	NC	NC	NC
Construction Worker Comparative Value (CV)[a]	82	33346	375	251	3523
Construction Worker PRG[b]	39	49000	NC	NC	NC
0-2" Mean Concentration	3.3	198	0.17	3.0	14
0-2" 95% UCL on Mean Concentration	4.6	233	0.18	3.7	15

[a] Residential human health CV established as the 95% UCL on mean background concentration + the lower of the residential soil screening level (SSL) for direct exposure pathways or the homegrown produce ingestion pathway.

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-2" mean concentration exceeds the residential CV.
0-2" mean concentration exceeds residential and worker CVs.
0-2" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Cadmium	Fluoride	Thallium	Uranium	Vanadium
			Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DU7-SSC001	DU7-SSC001 (0-2)	3-Nov-09	0-2		**2.4**	**210 J-**	**0.16 T**	**3.2**	**13**
DU7-SSC002	DU7-SSC002 (0-2)	3-Nov-09	0-2		**7.9**	**240 J-**	**0.17 T**	**5.4**	**15**
DU7-SSC003	DU7-SSC203 (0-2)	4-Nov-09	0-2		**3**	**310 J-**	**0.17 T**	**2.1**	**14 J-**
DU7-SSC003	DU7-SSC003 (0-2)	4-Nov-09	0-2		**2.8 B**	**280 J-**	**0.17 T**	**3.8**	**14**
DU7-SSC004	DU7-SSC004 (0-2)	3-Nov-09	0-2		**2.6 B**	**160 J-**	**0.17 T**	**2.7**	**14**
DU7-SSC005	DU7-SSC005 (0-2)	4-Nov-09	0-2		**2.8 B**	**190 J-**	**0.19 T**	**3.0**	**15**
DU7-SSC006	DU7-SSC006 (0-2)	3-Nov-09	0-2		**2.1**	**180 J-**	**0.16 T**	**1.6**	**14**
DU7-SSC007	DU7-SSC007 (0-2)	3-Nov-09	0-2		**2.5 B**	**120 J-**	**0.17 T**	**2.9**	**15**
DU7-SSC008	DU7-SSC008 (0-2)	3-Nov-09	0-2		**3.1 B**	**190 J-**	**0.17 T**	**2.3**	**15**
0-2" Mean Concentration					**3.3**	**198**	**0.17**	**3.0**	**14**
0-2" 95% UCL on Mean Concentration					**4.6**	**233**	**0.18**	**3.7**	**15**
DU7-SSC001	DU7-SSC001 (2-6)	3-Nov-09	2-6		**1.4**	**92 J-**	**0.15 T**	**3.2**	**12**
DU7-SSC002	DU7-SSC002 (2-6)	3-Nov-09	2-6		**1.4**	**180 J-**	**0.15 T**	**5.6**	**13**
DU7-SSC003	DU7-SSC003 (2-6)	4-Nov-09	2-6		**1.7**	**140 J-**	**0.16 T**	**3.3**	**13**
DU7-SSC003	DU7-SSC203 (2-6)	4-Nov-09	2-6		**1.8**	**140 J-**	**0.16 T**	**2.9**	**13 J-**
DU7-SSC004	DU7-SSC004 (2-6)	4-Nov-09	2-6		**1.3 B**	**140 J-**	**0.15 T**	**3.3**	**12**
DU7-SSC005	DU7-SSC005 (2-6)	4-Nov-09	2-6		**1.1 B**	**210 J-**	**0.16 T**	**3.4**	**13**
DU7-SSC006	DU7-SSC006 (2-6)	3-Nov-09	2-6		**1.2 B**	**160 J-**	**0.15 T**	**2.6**	**13**
DU7-SSC007	DU7-SSC007 (2-6)	3-Nov-09	2-6		**1.3 B**	**240 J-**	**0.15 T**	**2.2**	**13**
DU7-SSC008	DU7-SSC008 (2-6)	3-Nov-09	2-6		**1.4 B**	**140 J-**	**0.16 T**	**6.4**	**14**
2-6" Mean Concentration					**1.4**	**163**	**0.15**	**3.7**	**13**
2-6" 95% UCL on Mean Concentration					**1.5**	**194**	**0.16**	**4.7**	**13**

Bold Bolded result indicates positively identified compound.

T Analyte was positively identified but the reported concentration is estimated; reported concentration is less than the reporting limit, but greater than the method detection limit.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 9a
DU8 RADIOLOGICAL DATA SUMMARY AND EVALUATION AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Lead-210	Radium-226	Uranium-238
Units	pCi/g	pCi/g	pCi/g
0-6" Soil Background (95% UCL on Mean)	1.46	1.21	0.96
Residential Human Health Comparative Value (CV)[a]	1.91	1.22	1.74
Residential Human Health PRG[b]	31.0	2.51	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	2.40	1.23	2.37
Commercial/Industrial Worker PRG[b]	67.2	3.75	NC
Construction Worker Comparative Value (CV)[a]	8.90	2.13	21.6
Construction Worker PRG[b]	615	104	NC
0-6" Mean Concentration	1.67	1.50	1.26
0-6" 95% UCL on Mean Concentration	1.93	1.73	1.45

[a] Human health CVs established as the 0-6"95% UCL on mean background concentration + receptor-specific soil screening level (SSL).

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-6" mean concentration exceeds the residential CV.

0-6" mean concentration exceeds residential and worker CVs.

0-6" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Analyte					Lead-210	Radium-226	Uranium-238
Units					pCi/g	pCi/g	pCi/g
0 - 2" Soil Background (95% UCL on Mean)					2.02	0.95	0.88
Location Identification	Field Sample Identification	Date Collected	Depth (in)				
DU8-SSC001	DU8-SSC001 (0-2)	10/21/09	0-2		1.83 ± 0.45	2 ± 0.46	1.25 ± 0.26
DU8-SSC002	DU8-SSC002 (0-2)	10/23/09	0-2		1.68 ± 0.42	1.24 ± 0.33	0.65 ± 0.18
DU8-SSC003	DU8-SSC003 (0-2)	10/22/09	0-2		1.65 ± 0.41	1.63 ± 0.39	1.05 ± 0.22
DU8-SSC004	DU8-SSC004 (0-2)	10/23/09	0-2		1.64 ± 0.41	1.76 ± 0.41	1.31 ± 0.29
DU8-SSC005	DU8-SSC005 (0-2)	10/27/09	0-2		2.73 ± 0.67	2.26 ± 0.54	1.72 ± 0.33
DU8-SSC006	DU8-SSC006 (0-2)	10/27/09	0-2		1.69 ± 0.42	1.25 ± 0.32	1.23 ± 0.27
DU8-SSC007	DU8-SSC007 (0-2)	10/22/09	0-2		3.02 ± 0.74	2.13 ± 0.48	1.88 ± 0.37
DU8-SSC008	DU8-SSC008 (0-2)	10/27/09	0-2		1.69 ± 0.42	1.24 ± 0.33	1.06 ± 0.22
DU8-SSC204	DU8-SSC204 (0-2)	10/23/09	0-2		1.51 ± 0.38	1.88 ± 0.45	1.92 ± 0.38
0-2" Mean Concentration					1.98	1.70	1.31
0-2" 95% UCL on Mean Concentration					2.36	1.98	1.58
2 - 6" Soil Background (95% UCL on Mean)					1.17	1.34	1.00
DU8-SSC001	DU8-SSC001 (2-6)	10/22/09	2-6		1.56 ± 0.39	1.24 ± 0.32	0.95 ± 0.2
DU8-SSC002	DU8-SSC002 (2-6)	10/23/09	2-6		1.66 ± 0.41	1.62 ± 0.38	1.44 ± 0.29
DU8-SSC003	DU8-SSC003 (2-6)	10/23/09	2-6		1.36 ± 0.35	1.26 ± 0.31	1.06 ± 0.22
DU8-SSC004	DU8-SSC004 (2-6)	10/23/09	2-6		1.51 ± 0.38	1.53 ± 0.38	1.61 ± 0.34
DU8-SSC005	DU8-SSC005 (2-6)	10/27/09	2-6		1.31 ± 0.33	1.28 ± 0.32	1.12 ± 0.23
DU8-SSC006	DU8-SSC006 (2-6)	10/27/09	2-6		1.43 ± 0.36	1.18 ± 0.33	1.05 ± 0.22
DU8-SSC007	DU8-SSC007 (2-6)	10/22/09	2-6		2.16 ± 0.53	1.96 ± 0.45	1.35 ± 0.29
DU8-SSC008	DU8-SSC008 (2-6)	10/27/09	2-6		1.18 ± 0.3	1.12 ± 0.30	1.42 ± 0.29
DU8-SSC204	DU8-SSC204 (2-6)	10/23/09	2-6		1.32 ± 0.33	1.64 ± 0.40	1.44 ± 0.29
2-6" Mean Concentration					1.51	1.41	1.24
2-6" 95% UCL on Mean Concentration					1.71	1.60	1.39

Bold Bolded result indicates positively identified compound.

TABLE 9b
DU 8 CHEMICAL DATA SUMMARY AND EVALUATION
AGAINST RESIDENTIAL AND WORKER CVS AND PRGS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Comparison to Residential and Worker CVs and PRGs

Analyte	Cadmium	Fluoride	Thallium	Uranium	Vanadium
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0 - 2" Soil Background (95% UCL on Mean)	0.72	302	0.13	0.66	19.6
Residential Human Health Comparative Value (CV)[a]	3.1	772	0.64	5.3	58.6
Residential Human Health PRG[b]	NC	7200	NC	NC	NC
Commercial/Industrial Worker Comparative Value (CV)[a]	860	68396	77	682	7969
Commercial/Industrial Worker PRG[b]	830	100000	NC	NC	NC
Construction Worker Comparative Value (CV)[a]	82	33346	375	251	3523
Construction Worker PRG[b]	39	49000	NC	NC	NC
0-2" Mean Concentration	6.5	608	0.18	3.9	24
0-2" 95% UCL on Mean Concentration	8.0	773	0.20	4.7	26

[a] Residential human health CV established as the 95% UCL on mean background concentration + the lower of the residential soil screening level (SSL) for direct exposure pathways or the homegrown produce ingestion pathway.

[b] PRGs documented in SFS Work Plan for the FMC Plant OU (MWH, 2010).

NC Not calculated.

0-2" mean concentration exceeds the residential CV.
0-2" mean concentration exceeds residential and worker CVs.
0-2" 95% UCL concentration exceeds residential or worker PRGs.

Validated Laboratory Data

Location Identification	Field Sample Identification	Date Collected	Depth (in)		Cadmium mg/kg	Fluoride mg/kg	Thallium mg/kg	Uranium mg/kg	Vanadium mg/kg
DU8-SSC001	DU8-SSC001 (0-2)	21-Oct-09	0-2		5.3	260 J-	0.17 T	3.7	21
DU8-SSC002	DU8-SSC002 (0-2)	23-Oct-09	0-2		2.8	510 J-	0.19 T	1.9	23
DU8-SSC003	DU8-SSC003 (0-2)	22-Oct-09	0-2		8.3	500 J-	0.21 T	3.1	27
DU8-SSC004	DU8-SSC004 (0-2)	23-Oct-09	0-2		4.2 J	600 J-	0.2 T	3.9	23 J-
DU8-SSC004	DU8-SSC204 (0-2)	23-Oct-09	0-2		5.5	600 J-	0.18 T	5.1	21
DU8-SSC005	DU8-SSC005 (0-2)	27-Oct-09	0-2		9.6	1100 J-	0.2 T	3.7	29
DU8-SSC006	DU8-SSC006 (0-2)	27-Oct-09	0-2		5.4	550 J-	0.16 T	5.6	20
DU8-SSC007	DU8-SSC007 (0-2)	22-Oct-09	0-2		8.8	800 J-	0.19 T	3.2	26
DU8-SSC008	DU8-SSC008 (0-2)	27-Oct-09	0-2		6.6	540 J-	0.16 T	5.7	20
0-2" Mean Concentration					6.5	608	0.18	3.9	24
0-2" 95% UCL on Mean Concentration					8.0	773	0.20	4.7	26
DU8-SSC001	DU8-SSC001 (2-6)	22-Oct-09	2-6		5	350 J-	0.17 T	2.8	20
DU8-SSC002	DU8-SSC002 (2-6)	23-Oct-09	2-6		6.6	480 J-	0.2 T	4.3	25
DU8-SSC003	DU8-SSC003 (2-6)	23-Oct-09	2-6		4.1	520 J-	0.19 T	3.2	22
DU8-SSC004	DU8-SSC004 (2-6)	23-Oct-09	2-6		5.4	940 J-	0.17 T	4.8	20 J-
DU8-SSC004	DU8-SSC204 (2-6)	23-Oct-09	2-6		5	700 J-	0.17 T	3.4	20
DU8-SSC005	DU8-SSC005 (2-6)	27-Oct-09	2-6		5.6	1000 J-	0.18 T	3.1	26
DU8-SSC006	DU8-SSC006 (2-6)	27-Oct-09	2-6		4.8	450 J-	0.17 T	4.0	20
DU8-SSC007	DU8-SSC007 (2-6)	22-Oct-09	2-6		7.4	610 J-	0.2 T	4.2	24
DU8-SSC008	DU8-SSC008 (2-6)	27-Oct-09	2-6		5	670 J-	0.17 T	4.3	20
2-6" Mean Concentration					5.5	613	0.18	3.7	22
2-6" 95% UCL on Mean Concentration					6.2	755	0.19	4.2	24

Bold Bolded result indicates positively identified compound.

T Analyte was positively identified but the reported concentration is estimated; reported concentration is less than the reporting limit, but greater than the method detection limit.

J- Data are estimated, potentially biased low due to associated quality control data.

TABLE 10
HUMAN HEALTH CVs FOR EVALUATING THE OFF-PLANT OU
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Constituents	Background Concentration (95% UCL on the Mean)[a]	Region 10 Residential SSL[b]	SSL for the Homegrown Produce Ingestion Pathway[c]	Residential CV[d]	Commercial/ Industrial Worker SSL[e]	Commercial/ Industrial Worker CV[f]	Construction Worker SSL[e]	Construction Worker CV[f]	Utility Worker SSL[d]	Utility Worker CV
ROPCs (pCi/g)										
Lead-210	1.46	0.45	1.06	1.91	0.94	2.4	7.4	9.5	96.7	98
Radium-226	1.21	0.013	3.76	1.22	0.023	1.23	0.93	2.1	12.3	14
Uranium-238	0.96	0.78	16.60	1.74	1.4	2.4	20.6	21.6	267	268
COPCs (mg/kg)										
Cadmium	0.72	7.0	2.33	3.1	860	860	81	82	1,057	1,058
Fluoride	302	470	8,567	772	68,093	68,396	33,044	33,346	429,569	429,871
Thallium	0.13	0.51	22	0.64	77	77	374	375	4,868	4,868
Uranium	0.66	4.6	1,520	5.3	681	682	250	251	3,254	3,255
Vanadium	19.6	39	1,630	58.64	7,949	7,969	3,503	3,523	45,544	45,564

a) 0-2" data used to characterize COPC background soil concentrations and 0-6" data used to characterize ROPC background soil concentrations.

b) EPA Region 10 guidance recommends use of Region 6 screening levels. EPA Region 6 currently recommends use of the Regional Screening Table (RSL) website for chemical screening levels. The RSL website recommends use of EPA's Preliminary Remediation Goals website (http://epa-prgs.ornl.gov/radionuclides/) for radionuclide screening levels. Per EPA Region 10 guidance, residential SSLs established at a cancer risk threshold of 1E-06 and a non-cancer hazard index = 0.1.

c) SSLs for the homegrown produce ingestion pathway developed in Attachment A to the Supplemental Remedial Investigation Addendum Report for the FMC Plant Operable Unit (MWH, 2010a). Per EPA Region 10 guidance, SSLs established at a cancer risk threshold of 1E-06 and a non-cancer hazard index = 0.1.

d) The residential CV consists of the lower of the Region 10 residential SSL or homegrown produce ingestion SSL + 95% UCL background concentration.

e) Worker SSLs taken from Table 3-2 of the Supplemental Remedial Investigation Addendum Report for the FMC Plant Operable Unit (MWH, 2010a).

f) Worker CVs consist of the applicable worker SSL + 95% UCL background concentration.

TABLE 11
SUMMARY OF CONSTITUENTS EXCEEDING CVs
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Assessment Type	Surface Soil							
	DU 1	DU 2	DU 3	DU 4	DU 5	DU 6	DU 7	DU 8
Human Health Risk Assessment - Residential	Cd	Ra-226, Pb-210, Cd	Cd	Cd	Cd	-	Cd	Ra-226, Cd
Human Health Risk Assessment - Commerical/Industrial Workers	-	Ra-226	-	-	-	-	-	Ra-226
Human Health Risk Assessment – Construction/Utility Workers	-	-	-	-	-	-	-	-

- = No ROPC or COPC exceeded the risk-based screening CV for this combination of receptor and DU.

TABLE 12
RME AND CTE SOIL EXPOSURE POINT CONCENTRATIONS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

A) 95% UCL on the Mean Soil Exposure Point Concentrations

	Background	DU 1	DU 2	DU 3	DU 4	DU 5	DU 7	DU 8
0-to-2 inch bgs*								
ROCs (pCi/g)								
Radium-226	0.95	-	1.75	-	-	-	-	1.98
Lead-210	2.02	-	2.06	-	-	-	-	-
COCs (mg/kg)								
Cadmium	0.72	5.1	10.8	5.0	5.6	5.6	4.6	8.0
0-to-6 inch bgs**								
ROCs (pCi/g)								
Radium-226	1.21	-	1.73	-	-	-	-	1.73
Lead-210	1.46	-	2.22	-	-	-	-	-
COCs (mg/kg)								
Cadmium	-	5.0	10.7	5.2	4.6	5.7	2.5	6.8

* 95% UCL 0-to-2 inch concentrations used to characterize RME soil EPCs for all exposure pathways except homegrown fruit and vegetable ingestion and the background EPC for external exposure to gamma radiation.

** 95% UCL 0-to-6 inch concentrations used to characterize the RME background soil EPC for the external exposure to gamma radiation pathway.

B) Mean Soil Exposure Point Concentrations

	Background	DU 1	DU 2	DU 3	DU 4	DU 5	DU 7	DU 8
0-to-2 inch bgs***								
ROCs (pCi/g)								
Radium-226	0.78	-	1.66	-	-	-	-	1.70
Lead-210	1.88	-	2.00	-	-	-	-	-
COCs (mg/kg)								
Cadmium	0.65	4.8	10.3	4.6	5.2	5.3	3.3	6.5
0-to-6 inch bgs****								
ROCs (pCi/g)								
Radium-226	0.94	-	1.64	-	-	-	-	1.50
Lead-210	1.32	-	1.99	-	-	-	-	-
COCs (mg/kg)								
Cadmium	-	4.7	10.2	4.7	4.3	5.4	2.0	5.8

*** Mean 0-to-2 inch concentrations used to characterize CTE soil EPCs for all exposure pathways except homegrown fruit and vegetable ingestion and the background EPC for external exposure to gamma radiation.

**** Mean 0-to-6 inch concentrations used to characterize the CTE background soil EPC for the external exposure to gamma radiation pathway and, in combination with 95% UCL plant uptake factors, RME fruit and vegetable EPCs for the homegrown produce ingestion pathway.

\- Not identified as a COC/ROC for any receptor evaluated in this exposure unit.

TABLE 13
NON CHEMICAL-SPECIFIC RME EXPOSURE ASSUMPTIONS[a]
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Parameter	Units	Resident - Child	Resident - Adult	Outdoor Industrial/Commercial Worker	Indoor Industrial/Commercial Worker	Construction Worker	Utility Worker[b]
Body Weight	kg	15	70	70	70	70	70
Averaging Time (Non-Carcinogens)	years	6	24	25	25	1	1
Averaging Time (Carcinogens)	years	70	70	70	70	70	70
Outdoor Exposure Time	fraction	0.073	0.073	0.33	0	0.33	0.33
Indoor Exposure Time	fraction	0.683	0.683	0	0.33	0	0
Exposure Frequency	days/yr	350	350	225	250	130	10
Exposure Duration	years	6	24	25	25	1	1
Gamma Shielding Factor	unitless	0.4	0.4	0.4	0.4	0.4	0.4
Area Correction Factor	unitless	0.9	0.9	0.9	0.9	0.9	0.9
Fruit Consumption Rate (WW)	kg/year	5.4	20.5	NA	NA	NA	NA
Vegetable Consumption Rate (WW)	kg/year	3.8	10.4	NA	NA	NA	NA
Contaminated Plant Fraction	fraction	0.25	0.25	NA	NA	NA	NA
Soil Ingestion Rate	mg/day	200	100	100	50	330	330
Skin-Soil Adherence Factor	mg/cm^2-event	0.2	0.07	0.2	NA	0.3	0.9
Skin Surface Exposed	cm^2	2800	5700	3300	NA	3300	3300
Event Frequency	event/day	1	1	1	NA	1	1
Inhalation Rate	m^3/day	10	20	20	NA	20	20
Indoor Dilution Factor	fraction	0.4	0.4	NA	NA	NA	NA
Particulate Emission Factor[c]	m3/kg	1.32E+09	1.32E+09	3.41E+08	NA	7.44E+05	7.44E+05

NA = Not applicable.

a) Unless otherwise noted, all values used to characterize exposure parameters are defaults taken from EPA (1989), EPA (1996), EPA (2002), EPA (2004) and EPA (2011).

b) The default construction worker exposure assumptions are assumed to apply to a utility worker, except that a shorter exposure duration is used based on professional judgement.

c) The assumptions used to derive worker particulate emission factors are the same as those used to derive SSLs in the RI Update Memorandum (BEI, 2004).

TABLE 14
NON CHEMICAL-SPECIFIC CTE EXPOSURE ASSUMPTIONS[a]
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Parameter	Units	Resident - Child	Resident - Adult	Outdoor Industrial/Commercial Worker	Indoor Industrial/Commercial Worker	Construction Worker	Utility Worker[b]
Body Weight	kg	15	70	70	70	70	70
Averaging Time (Non-Carcinogens)	years	2	7	6.6	6.6	1	1
Averaging Time (Carcinogens)	years	70	70	70	70	70	70
Outdoor Exposure Time	fraction	0.073	0.073	0.33	0	0.33	0.33
Indoor Exposure Time	fraction	0.683	0.683	0	0.33	0	0
Exposure Frequency	days/yr	234	234	225	234	20	2
Exposure Duration	years	2	7	6.6	6.6	1	1
Gamma Shielding Factor	unitless	0.4	0.4	0.4	0.4	0.4	0.4
Area Correction Factor	unitless	0.9	0.9	0.9	0.9	0.9	0.9
Fruit Consumption Rate (WW)	kg/year	5.4	20.5	NA	NA	NA	NA
Vegetable Consumption Rate (WW)	kg/year	3.8	10.4	NA	NA	NA	NA
Contaminated Plant Fraction	fraction	0.25	0.25	NA	NA	NA	NA
Soil Ingestion Rate	mg/day	100	50	50	50	330	330
Skin-Soil Adherence Factor	mg/cm^2-event	0.04	0.01	0.02	NA	0.3	0.9
Skin Surface Exposed	cm^2	2000	5000	3300	NA	3300	3300
Event Frequency	event/day	1	1	1	NA	1	1
Inhalation Rate	m^3/day	7.4	13.25	20	NA	20	20
Indoor Dilution Factor	fraction	0.4	0.4	NA	NA	NA	NA
Particulate Emission Factor[c]	m3/kg	1.32E+09	1.32E+09	3.41E+08	NA	7.44E+05	7.44E+05

NA = Not applicable.

a) Unless otherwise noted, all values used to characterize exposure parameters are defaults taken from EPA (1989), EPA (1991), EPA (1993), EPA (1997), EPA (2002), EPA (2004) and EPA (2011).

b) The default construction worker exposure assumptions are assumed to apply to a utility worker, except that a shorter exposure duration is used based on professional judgement.

c) The assumptions used to derive worker particulate emission factors are the same as those used to derive SSLs in the RI Update Memorandum (BEI, 2004).

TABLE 15
CANCER SLOPE FACTORS (CSFs) FOR ROCs
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Radionuclides	Weight of Evidence[a]	Food Ingestion (risk/pCi)	Soil Ingestion (risk/pCi)	Inhalation (risk/pCi)	External Exposure (risk/y per pCi/g)	Note(s) on Toxicity Value	Source(s)[b]
Lead-210	A	3.44×10^{-9}	2.66×10^{-9}	1.39×10^{-8}	4.21×10^{-9}	Values are for Pb-210+D	HEAST
Radium-226	A	5.15×10^{-10}	7.30×10^{-10}	1.16×10^{-8}	8.49×10^{-6}	Value is for Ra-226+D	HEAST

Abbreviations:

HEAST = EPA's Health Effects Assessment Summary Tables

Footnotes:

[a] EPA categorizes all radionuclides in Group A (known human carcinogen).

References:

EPA:

EPA. 1999. Cancer Risk Coefficients for Environmental Exposure to Radionuclides. Federal Guidance Report No. 13. EPA 402-R-99-001.

EPA. 2001. Health Effects Assessment Summary Tables (HEAST). Radionuclide Table: Radionuclide Carcinogenicity – Slope Factors. April 16, 2001 Update. Accessed: April 29, 2009. http://www.epa.gov/radiation/heast.

TABLE 16
CANCER SLOPE FACTORS (CSFs) AND UNIT RISK FACTORS (URFs) FOR COCs
EMF Superfund Site, Pocatello, idaho
Page 1 of 1

Chemical	Weight of Evidence[a]	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation URF $(\mu g/m3)^{-1}$	Portal of Entry Effect (N/Y)	Type(s) of Cancer	Study Basis (Species / Route of Administration)	Note(s) on Toxicity Value	Source(s)[b]
Inorganics								
Cadmium	No evidence (oral)	NA						
	B1 (inhalation)		$1.8x10^{-3}$	Y	Lung, trachea, bronchus	Human (white, male), inhalation occupational exposure		IRIS (EPA, 1992)

Abbreviations:

IRIS	=	U.S. EPA Integrated Risk Information System
N	=	Critical effect(s) did not occur at the portal of entry.
NA	=	not available
RfD	=	reference dose
R-to-R	=	route-to-route extrapolation
Y	=	Critical effect(s) occurred at the portal of entry.

Footnotes:

[a] Weight of Evidence (U.S. EPA)

A	=	Known human carcinogen
B1/B2	=	Probable human carcinogen
C	=	Possible human carcinogen
D	=	Not classifiable as to human carcinogenicity

References:

IRIS

EPA. 1992. IRIS Toxicity Profile for Cadmium. II. Carcinogenicity Assessment for Lifetime Exposure. Revised: June 1992. Accessed: November 2, 2007. http://www.epa.gov/iris/subst/0141.htm.

TABLE 17
REFERENCE DOSES (RfDs) AND REFERENCE CONCENTRATIONS (RfCs) FOR COCs
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Chemical	Oral RfD (mg/kg-day)	Inhalation RfC (mg/m^3)	Portal of Entry Effect (N/Y)	Confidence in RfD/RfC	Critical Effect(s)	Study Basis (Species / Route of Administration)	Uncertainty/ Modifying Factors	Note(s) on Toxicity Value	Source(s)[a]
Inorganics									
Cadmium	0.001		N	High	Significant proteinuria	Human, toxicokinetic model	10/1	Value is for food	IRIS (EPA, 1994)
		0.00002	N	NA	NA	NA	NA		Cal EPA (CalEPA, 2009)

Abbreviations:

CalEPA	=	California Environmental Protection Agency
IRIS	=	U.S. EPA's Integrated Risk Information System
N	=	Critical effect(s) did not occur at the portal of entry.

Abbreviations (Continued):

NA	=	not available
RfC	=	Reference Concentration
RfD	=	Reference Dose
U.S. EPA	=	United States Environmental Protection Agency
Y	=	Critical effect(s) occurred at the portal of entry.

Footnotes:

[a] Complete references are listed below. References are listed by source under the headings: ATSDR, CalEPA, or U.S. EPA. The U.S. EPA heading is subdivided under the subheadings: EPA, HEAST, and IRIS.

References:

CalEPA:

CalEPA. 2009. REL for Cadmium from http://www.oehha.ca.gov/air/allrels.html accessed June 26, 2009.

IRIS

EPA. 1994. IRIS Toxicity Profile for Cadmium. I.A. Reference Dose for Chronic Oral Exposure. Revised: February 1994. Accessed: June 21, 2009. http://www.epa.gov/iris/subst/0141.htm.

TABLE 18
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN DU 1
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Exposure Pathways	Exposure Scenario						
	Resident (a)						
	RME			CTE			Risk Drivers*
	Total	Bkgd	Inc	Total	Bkgd	Inc	
Lifetime Cancer Risk							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	3.E-09	4.E-10	2.E-09	5.E-10	7.E-11	5.E-10	-
Total COPC Lifetime Cancer Risk	*3.E-09*	*4.E-10*	*2.E-09*	*5.E-10*	*7.E-11*	*5.E-10*	-
ROCs							
External Exposure to Gamma Radiation	BScr	BScr	BScr	BScr	BScr	BScr	-
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total ROPC Lifetime Cancer Risk	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
Total Lifetime Cancer Risk	***3.E-09***	***4.E-10***	***2.E-09***	***5.E-10***	***7.E-11***	***5.E-10***	***-***
Chronic and Subchronic Non-Cancer Hazard Quotient							
COCs							
Incidental Soil Ingestion	0.1	0.0	0.1	0.02	0.003	0.02	Cd
Dermal Absorption	0.01	0.001	0.01	0.001	0.00009	0.001	-
Ingestion of Homegrown Produce	0.7	0.1	0.6	0.1	0.02	0.1	Cd
Fugitive Dust Inhalation	0.0002	0.00003	0.0002	0.0001	0.00002	0.0001	-
Total Non-Cancer Hazard Quotient	***0.8***	***0.1***	***0.6***	***0.1***	***0.02***	***0.1***	***Cd***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 19
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN DU 2
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 2)

Exposure Pathways	Exposure Scenario													
	Resident (a)							Outdoor Commercial/Industrial Worker						
	RME			CTE			Risk Drivers*	RME			CTE			Risk Drivers*
	Total	Bkgd	Inc	Total	Bkgd	Inc		Total	Bkgd	Inc	Total	Bkgd	Inc	
Lifetime Cancer Risk														
COCs														
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	6.E-09	4.E-10	6.E-09	1.E-09	7.E-11	1.E-09	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Total COPC Lifetime Cancer Risk	*6.E-09*	*4.E-10*	*6.E-09*	*1.E-09*	*7.E-11*	*1.E-09*	-	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
ROCs														
External Exposure to Gamma Radiation	1.E-04	9.E-05	2.E-05	2.E-05	1.E-05	6.E-06	Ra-226	6.E-05	5.E-05	1.E-05	1.E-05	1.E-05	4.E-06	Ra-226
Incidental Soil Ingestion	8.E-06	8.E-06	8.E-07	8.E-07	7.E-07	1.E-07	Pb-210, Ra-226	7.E-07	4.E-07	3.E-07	9.E-08	4.E-08	5.E-08	-
Ingestion of Homegrown Produce	8.E-06	5.E-06	3.E-06	2.E-06	1.E-06	8.E-07	Pb-210	NA	NA	NA	NA	NA	NA	-
Fugitive Dust Inhalation	2.E-09	2.E-09	5.E-10	3.E-10	2.E-10	8.E-11	-	7.E-09	4.E-09	3.E-09	2.E-09	8.E-10	9.E-10	-
Total ROPC Lifetime Cancer Risk	*1.E-04*	*1.E-04*	*3.E-05*	*2.E-05*	*2.E-05*	*7.E-06*	*Ra-226, Pb-210*	*6.E-05*	*5.E-05*	*1.E-05*	*1.E-05*	*1.E-05*	*4.E-06*	*Ra-226*
Total Lifetime Cancer Risk	***1.E-04***	***1.E-04***	***3.E-05***	***2.E-05***	***2.E-05***	***7.E-06***	***Ra-226, Pb-210***	***6.E-05***	***5.E-05***	***1.E-05***	***1.E-05***	***1.E-05***	***4.E-06***	***Ra-226***
Chronic and Subchronic Non-Cancer Hazard Quotient														
COCs														
Incidental Soil Ingestion	0.1	0.0	0.1	0.04	0.003	0.04	Cd	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	0.02	0.001	0.01	0.001	0.00009	0.001	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	0.7	0.1	0.6	0.1	0.02	0.1	Cd	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	0.0004	0.00003	0.0004	0.0003	0.00002	0.0002	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Total Non-Cancer Hazard Quotient	***0.8***	***0.1***	***0.7***	***0.1***	***0.02***	***0.1***	***Cd***	***BScr***	***BScr***	***BScr***	***BScr***	***BScr***	***BScr***	***-***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 19
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN DU 2
EMF Superfund Site, Pocatello, Idaho
(Page 2 of 2)

Exposure Pathways	Exposure Scenario						
	Indoor Commercial/Industrial Worker						
	RME			CTE			
	Total	Bkgd	Inc	Total	Bkgd	Inc	Risk Drivers*
Lifetime Cancer Risk							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total COPC Lifetime Cancer Risk	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
ROCs							
External Exposure to Gamma Radiation	3.E-05	2.E-05	5.E-06	6.E-06	4.E-06	2.E-06	Ra-226
Incidental Soil Ingestion	4.E-07	2.E-07	2.E-07	9.E-08	4.E-08	5.E-08	-
Ingestion of Homegrown Produce	NA	NA	NA	NA	NA	NA	-
Fugitive Dust Inhalation	NA	NA	NA	NA	NA	NA	-
Total ROPC Lifetime Cancer Risk	*3.E-05*	*2.E-05*	*5.E-06*	*6.E-06*	*4.E-06*	*2.E-06*	*Ra-226*
Total Lifetime Cancer Risk	***3.E-05***	***2.E-05***	***5.E-06***	***6.E-06***	***4.E-06***	***2.E-06***	***Ra-226***
Chronic and Subchronic Non-Cancer Hazard Quo							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total Non-Cancer Hazard Quotient	***BScr***	***BScr***	***BScr***	***BScr***	***BScr***	***BScr***	***-***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 20
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN OFF-PLANT OU DU 3
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Exposure Pathways	Exposure Scenario						
	Resident (a)						
	RME			CTE			Risk Drivers*
	Total	Bkgd	Inc	Total	Bkgd	Inc	
Lifetime Cancer Risk							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	3.E-09	4.E-10	2.E-09	5.E-10	7.E-11	4.E-10	-
Total COPC Lifetime Cancer Risk	*3.E-09*	*4.E-10*	*2.E-09*	*5.E-10*	*7.E-11*	*4.E-10*	-
ROCs							
External Exposure to Gamma Radiation	BScr	BScr	BScr	BScr	BScr	BScr	-
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total ROPC Lifetime Cancer Risk	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
Total Lifetime Cancer Risk	***3.E-09***	***4.E-10***	***2.E-09***	***5.E-10***	***7.E-11***	***4.E-10***	***-***
Chronic and Subchronic Non-Cancer Hazard Quotient							
COCs							
Incidental Soil Ingestion	0.1	0.0	0.1	0.02	0.003	0.02	Cd
Dermal Absorption	0.01	0.001	0.01	0.001	0.00009	0.001	-
Ingestion of Homegrown Produce	0.7	0.1	0.6	0.1	0.02	0.1	Cd
Fugitive Dust Inhalation	0.0002	0.00003	0.0002	0.0001	0.00002	0.0001	-
Total Non-Cancer Hazard Quotient	***0.8***	***0.1***	***0.6***	***0.1***	***0.02***	***0.1***	***Cd***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 21
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN OFF-PLANT OU DU 4
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Exposure Pathways	Exposure Scenario						
	Resident (a)						
	RME			CTE			Risk Drivers*
	Total	Bkgd	Inc	Total	Bkgd	Inc	
Lifetime Cancer Risk							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	3.E-09	4.E-10	3.E-09	6.E-10	7.E-11	5.E-10	-
Total COPC Lifetime Cancer Risk	*3.E-09*	*4.E-10*	*3.E-09*	*6.E-10*	*7.E-11*	*5.E-10*	-
ROCs							
External Exposure to Gamma Radiation	BScr	BScr	BScr	BScr	BScr	BScr	-
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total ROPC Lifetime Cancer Risk	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
Total Lifetime Cancer Risk	***3.E-09***	***4.E-10***	***3.E-09***	***6.E-10***	***7.E-11***	***5.E-10***	***-***
Chronic and Subchronic Non-Cancer Hazard Quotient							
COCs							
Incidental Soil Ingestion	0.1	0.0	0.1	0.02	0.003	0.02	Cd
Dermal Absorption	0.01	0.001	0.01	0.001	0.00009	0.001	-
Ingestion of Homegrown Produce	0.7	0.1	0.6	0.1	0.02	0.1	Cd
Fugitive Dust Inhalation	0.0002	0.00003	0.0002	0.0001	0.00002	0.0001	-
Total Non-Cancer Hazard Quotient	***0.8***	***0.1***	***0.6***	***0.1***	***0.02***	***0.1***	***Cd***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 22
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN OFF-PLANT OU DU 5
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Exposure Pathways	Exposure Scenario						
	Resident (a)						
	RME			CTE			Risk Drivers*
	Total	Bkgd	Inc	Total	Bkgd	Inc	
Lifetime Cancer Risk							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	3.E-09	4.E-10	3.E-09	6.E-10	7.E-11	5.E-10	-
Total COPC Lifetime Cancer Risk	*3.E-09*	*4.E-10*	*3.E-09*	*6.E-10*	*7.E-11*	*5.E-10*	-
ROCs							
External Exposure to Gamma Radiation	BScr	BScr	BScr	BScr	BScr	BScr	-
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total ROPC Lifetime Cancer Risk	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
Total Lifetime Cancer Risk	***3.E-09***	***4.E-10***	***3.E-09***	***6.E-10***	***7.E-11***	***5.E-10***	***-***
Chronic and Subchronic Non-Cancer Hazard Quotient							
COCs							
Incidental Soil Ingestion	0.1	0.0	0.1	0.02	0.003	0.02	Cd
Dermal Absorption	0.01	0.001	0.01	0.001	0.00009	0.001	-
Ingestion of Homegrown Produce	0.7	0.1	0.6	0.1	0.02	0.1	Cd
Fugitive Dust Inhalation	0.0002	0.00003	0.0002	0.0001	0.00002	0.0001	-
Total Non-Cancer Hazard Quotient	***0.8***	***0.1***	***0.6***	***0.1***	***0.02***	***0.1***	***Cd***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 23
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN OFF-PLANT OU DU 7
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 1)

Exposure Pathways	Exposure Scenario						
	Resident (a)						
	RME			CTE			Risk Drivers*
	Total	Bkgd	Inc	Total	Bkgd	Inc	
Lifetime Cancer Risk							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	3.E-09	4.E-10	2.E-09	4.E-10	7.E-11	3.E-10	-
Total COPC Lifetime Cancer Risk	*3.E-09*	*4.E-10*	*2.E-09*	*4.E-10*	*7.E-11*	*3.E-10*	-
ROCs							
External Exposure to Gamma Radiation	BScr	BScr	BScr	BScr	BScr	BScr	-
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total ROPC Lifetime Cancer Risk	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
Total Lifetime Cancer Risk	***3.E-09***	***4.E-10***	***2.E-09***	***4.E-10***	***7.E-11***	***3.E-10***	***-***
Chronic and Subchronic Non-Cancer Hazard Quotient							
COCs							
Incidental Soil Ingestion	0.1	0.0	0.0	0.01	0.003	0.01	Cd
Dermal Absorption	0.01	0.001	0.01	0.000	0.00009	0.000	-
Ingestion of Homegrown Produce	0.7	0.1	0.6	0.1	0.02	0.1	Cd
Fugitive Dust Inhalation	0.0002	0.00003	0.0001	0.0001	0.00002	0.0001	-
Total Non-Cancer Hazard Quotient	***0.8***	***0.1***	***0.6***	***0.1***	***0.02***	***0.1***	***Cd***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 24
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN DU 8
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 2)

Exposure Pathways	Exposure Scenario													
	Resident (a)							Outdoor Commercial/Industrial Worker						
	RME			CTE			Risk Drivers*	RME			CTE			Risk Drivers*
	Total	Bkgd	Inc	Total	Bkgd	Inc		Total	Bkgd	Inc	Total	Bkgd	Inc	
Lifetime Cancer Risk														
COCs														
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	4.E-09	4.E-10	4.E-09	7.E-10	7.E-11	7.E-10	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Total COPC Lifetime Cancer Risk	*4.E-09*	*4.E-10*	*4.E-09*	*7.E-10*	*7.E-11*	*7.E-10*	-	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
ROCs														
External Exposure to Gamma Radiation	1.E-04	9.E-05	3.E-05	2.E-05	1.E-05	6.E-06	Ra-226	6.E-05	5.E-05	2.E-05	1.E-05	1.E-05	4.E-06	Ra-226
Incidental Soil Ingestion	2.E-06	9.E-07	9.E-07	2.E-07	7.E-08	9.E-08	Ra-226	8.E-07	4.E-07	4.E-07	9.E-08	4.E-08	5.E-08	-
Ingestion of Homegrown Produce	7.E-07	5.E-07	3.E-07	2.E-07	1.E-07	8.E-08	-	NA	NA	NA	NA	NA	NA	-
Fugitive Dust Inhalation	1.E-09	5.E-10	6.E-10	1.E-10	6.E-11	7.E-11	-	8.E-09	4.E-09	4.E-09	2.E-09	8.E-10	9.E-10	-
Total ROPC Lifetime Cancer Risk	*1.E-04*	*9.E-05*	*3.E-05*	*2.E-05*	*1.E-05*	*6.E-06*	*Ra-226*	*6.E-05*	*5.E-05*	*2.E-05*	*1.E-05*	*1.E-05*	*4.E-06*	*Ra-226*
Total Lifetime Cancer Risk	***1.E-04***	***9.E-05***	***3.E-05***	***2.E-05***	***1.E-05***	***6.E-06***	***Ra-226***	***6.E-05***	***5.E-05***	***2.E-05***	***1.E-05***	***1.E-05***	***4.E-06***	***Ra-226***
Chronic and Subchronic Non-Cancer Hazard Quotient														
COCs														
Incidental Soil Ingestion	0.1	0.0	0.1	0.03	0.003	0.03	Cd	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	0.01	0.001	0.01	0.001	0.00009	0.001	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	0.7	0.1	0.6	0.1	0.02	0.1	Cd	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	0.0003	0.00003	0.0003	0.0002	0.00002	0.0001	-	BScr	BScr	BScr	BScr	BScr	BScr	-
Total Non-Cancer Hazard Quotient	***0.8***	***0.1***	***0.7***	***0.1***	***0.02***	***0.1***	***Cd***	***BScr***	***BScr***	***BScr***	***BScr***	***BScr***	***BScr***	***-***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 24
SUMMARY OF POTENTIAL HUMAN HEALTH RISKS TO FUTURE RECEPTORS IN DU 8
EMF Superfund Site, Pocatello, Idaho
(Page 2 of 2)

Exposure Pathways	Exposure Scenario						
	Indoor Commercial/Industrial Worker						
	RME			CTE			Risk Drivers*
	Total	Bkgd	Inc	Total	Bkgd	Inc	
Lifetime Cancer Risk							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total COPC Lifetime Cancer Risk	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	*BScr*	-
ROCs							
External Exposure to Gamma Radiation	3.E-05	2.E-05	7.E-06	6.E-06	4.E-06	2.E-06	Ra-226
Incidental Soil Ingestion	5.E-07	2.E-07	2.E-07	1.E-07	4.E-08	5.E-08	-
Ingestion of Homegrown Produce	NA	NA	NA	NA	NA	NA	-
Fugitive Dust Inhalation	NA	NA	NA	NA	NA	NA	-
Total ROPC Lifetime Cancer Risk	*3.E-05*	*2.E-05*	*7.E-06*	*6.E-06*	*4.E-06*	*2.E-06*	*Ra-226*
Total Lifetime Cancer Risk	***3.E-05***	***2.E-05***	***7.E-06***	***6.E-06***	***4.E-06***	***2.E-06***	***Ra-226***
Chronic and Subchronic Non-Cancer Hazard Quoti							
COCs							
Incidental Soil Ingestion	BScr	BScr	BScr	BScr	BScr	BScr	-
Dermal Absorption	BScr	BScr	BScr	BScr	BScr	BScr	-
Ingestion of Homegrown Produce	BScr	BScr	BScr	BScr	BScr	BScr	-
Fugitive Dust Inhalation	BScr	BScr	BScr	BScr	BScr	BScr	-
Total Non-Cancer Hazard Quotient	***BScr***	***BScr***	***BScr***	***BScr***	***BScr***	***BScr***	***-***

Notes:

a) Residential cancer risks representative of an age-integrated child/adult receptor. Residential non-cancer risks based on a child receptor.

Bscr = COC/ROC concentrations within this parcel are below screening levels for the receptor of concern.

NA = Not an applicable exposure route for the receptor of concern.

* If applicable, the two COCs/ROCs most significantly exceeding an incremental cancer risk of 1E-06 or incremental hazard index of 0.1 for each exposure pathway are identified.

TABLE 25a
SUMMARY OF RME CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 1	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	3.E-09	4.E-10	2.E-09	a	a	a	a	a	a	a	a	a	3.E-09	4.E-10	2.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 1 by Receptor			Resident	3.E-09	4.E-10	2.E-09	-	-	-	-	-	-	-	-	-	3.E-09	4.E-10	2.E-09
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25a
SUMMARY OF RME CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 2 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 2	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	2.E-06	9.E-07	7.E-07	7.E-06	7.E-06	1.E-07	8.E-06	8.E-06	8.E-07
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	7.E-07	4.E-07	3.E-07	a	a	a	7.E-07	4.E-07	3.E-07
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	4.E-07	2.E-07	2.E-07	a	a	a	4.E-07	2.E-07	2.E-07
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	8.E-07	5.E-07	3.E-07	7.E-06	5.E-06	2.E-06	8.E-06	5.E-06	3.E-06
			Outdoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	---------- NA ----------												-	-	-
			Utility Worker	---------- NA ----------												-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	6.E-09	4.E-10	6.E-09	a	a	a	1.E-09	5.E-10	5.E-10	1.E-09	1.E-09	2.E-11	8.E-09	2.E-09	6.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	7.E-09	4.E-09	3.E-09	a	a	a	7.E-09	4.E-09	3.E-09
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	1.E-04	9.E-05	2.E-05	7.E-08	5.E-08	2.E-08	1.E-04	9.E-05	2.E-05
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	6.E-05	5.E-05	1.E-05	a	a	a	6.E-05	5.E-05	1.E-05
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	3.E-05	2.E-05	5.E-06	a	a	a	3.E-05	2.E-05	5.E-06
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 2 by Receptor			Resident	6.E-09	4.E-10	6.E-09	-	-	-	1.E-04	9.E-05	2.E-05	1.E-05	1.E-05	2.E-06	1.E-04	1.E-04	3.E-05
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	6.E-05	5.E-05	1.E-05	-	-	-	6.E-05	5.E-05	1.E-05
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	3.E-05	2.E-05	5.E-06	-	-	-	3.E-05	2.E-05	5.E-06
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25a
SUMMARY OF RME CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 3 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 3	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	3.E-09	4.E-10	2.E-09	a	a	a	a	a	a	a	a	a	3.E-09	4.E-10	2.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 3 by Receptor			Resident	3.E-09	4.E-10	2.E-09	-	-	-	-	-	-	-	-	-	3.E-09	4.E-10	2.E-09
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25a
SUMMARY OF RME CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 4 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 4	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	3.E-09	4.E-10	3.E-09	a	a	a	a	a	a	a	a	a	3.E-09	4.E-10	3.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 4 by Receptor			Resident	3.E-09	4.E-10	3.E-09	-	-	-	-	-	-	-	-	-	3.E-09	4.E-10	3.E-09
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25a
SUMMARY OF RME CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 5 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 5	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	3.E-09	4.E-10	3.E-09	a	a	a	a	a	a	a	a	a	3.E-09	4.E-10	3.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 5 by Receptor			Resident	3.E-09	4.E-10	3.E-09	-	-	-	-	-	-	-	-	-	3.E-09	4.E-10	3.E-09
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25a
SUMMARY OF RME CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 6 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 6	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 6 by Receptor			Resident	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25a
SUMMARY OF RME CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 7 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 7	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	3.E-09	4.E-10	2.E-09	a	a	a	a	a	a	a	a	a	3.E-09	4.E-10	2.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 7 by Receptor			Resident	3.E-09	4.E-10	2.E-09	-	-	-	-	-	-	-	-	-	3.E-09	4.E-10	2.E-09
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25a
SUMMARY OF RME CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 8 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 8	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	2.E-06	9.E-07	9.E-07	a	a	a	8.E-06	8.E-06	8.E-07
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	8.E-07	4.E-07	4.E-07	a	a	a	8.E-07	4.E-07	4.E-07
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	5.E-07	2.E-07	2.E-07	a	a	a	5.E-07	2.E-07	2.E-07
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	7.E-07	5.E-07	3.E-07	a	a	a	7.E-07	5.E-07	3.E-07
			Outdoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	---------- NA ----------												-	-	-
			Utility Worker	---------- NA ----------												-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	4.E-09	4.E-10	4.E-09	a	a	a	1.E-09	5.E-10	6.E-10	a	a	a	6.E-09	1.E-09	5.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	8.E-09	4.E-09	4.E-09	a	a	a	8.E-09	4.E-09	4.E-09
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	1.E-04	9.E-05	3.E-05	a	a	a	1.E-04	9.E-05	3.E-05
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	6.E-05	5.E-05	2.E-05	a	a	a	6.E-05	5.E-05	2.E-05
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	3.E-05	2.E-05	7.E-06	a	a	a	3.E-05	2.E-05	7.E-06
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 8 by Receptor			Resident	4.E-09	4.E-10	4.E-09	-	-	-	1.E-04	9.E-05	3.E-05	-	-	-	1.E-04	9.E-05	3.E-05
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	6.E-05	5.E-05	2.E-05	-	-	-	6.E-05	5.E-05	2.E-05
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	3.E-05	2.E-05	7.E-06	-	-	-	3.E-05	2.E-05	7.E-06
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Cancer risk exceeds 3E-04.

NA Not an applicable exposure route for the receptor of concern.
- No values to sum.
a) COC/ROC concentration in this DU is below screening level for receptor of concern.
b) COC/ROC not associated with carcinogenic effects by this pathway.

TABLE 25b
SUMMARY OF CTE CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 1	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	5.E-10	7.E-11	5.E-10	a	a	a	a	a	a	a	a	a	5.E-10	7.E-11	5.E-10
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 1 by Receptor			Resident	5.E-10	7.E-11	5.E-10	-	-	-	-	-	-	-	-	-	5.E-10	7.E-11	5.E-10
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25b
SUMMARY OF CTE CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 2 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 2	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	2.E-06	9.E-07	7.E-07	7.E-06	7.E-06	1.E-07	8.E-06	8.E-06	8.E-07
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	7.E-07	4.E-07	3.E-07	a	a	a	7.E-07	4.E-07	3.E-07
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	4.E-07	2.E-07	2.E-07	a	a	a	4.E-07	2.E-07	2.E-07
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	8.E-07	5.E-07	3.E-07	7.E-06	5.E-06	2.E-06	8.E-06	5.E-06	3.E-06
			Outdoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	---------- NA ----------												-	-	-
			Utility Worker	---------- NA ----------												-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	1.E-09	7.E-11	1.E-09	a	a	a	1.E-09	5.E-10	5.E-10	1.E-09	1.E-09	2.E-11	4.E-09	2.E-09	2.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	7.E-09	4.E-09	3.E-09	a	a	a	7.E-09	4.E-09	3.E-09
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	1.E-04	9.E-05	2.E-05	7.E-08	5.E-08	2.E-08	1.E-04	9.E-05	2.E-05
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	6.E-05	5.E-05	1.E-05	a	a	a	6.E-05	5.E-05	1.E-05
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	3.E-05	2.E-05	5.E-06	a	a	a	3.E-05	2.E-05	5.E-06
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 2 by Receptor			Resident	1.E-09	7.E-11	1.E-09	-	-	-	1.E-04	9.E-05	2.E-05	1.E-05	1.E-05	2.E-06	1.E-04	1.E-04	3.E-05
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	6.E-05	5.E-05	1.E-05	-	-	-	6.E-05	5.E-05	1.E-05
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	3.E-05	2.E-05	5.E-06	-	-	-	3.E-05	2.E-05	5.E-06
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25b
SUMMARY OF CTE CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 3 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 3	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	5.E-10	7.E-11	4.E-10	a	a	a	a	a	a	a	a	a	5.E-10	7.E-11	4.E-10
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 3 by Receptor			Resident	5.E-10	7.E-11	4.E-10	-	-	-	-	-	-	-	-	-	5.E-10	7.E-11	4.E-10
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25b
SUMMARY OF CTE CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 4 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 4	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	6.E-10	7.E-11	5.E-10	a	a	a	a	a	a	a	a	a	6.E-10	7.E-11	5.E-10
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 4 by Receptor			Resident	6.E-10	7.E-11	5.E-10	-	-	-	-	-	-	-	-	-	6.E-10	7.E-11	5.E-10
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25b
SUMMARY OF CTE CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 5 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 5	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	6.E-10	7.E-11	5.E-10	a	a	a	a	a	a	a	a	a	6.E-10	7.E-11	5.E-10
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 5 by Receptor			Resident	6.E-10	7.E-11	5.E-10	-	-	-	-	-	-	-	-	-	6.E-10	7.E-11	5.E-10
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25b
SUMMARY OF CTE CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 6 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 6	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 6 by Receptor			Resident	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25b
SUMMARY OF CTE CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 7 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 7	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	4.E-10	7.E-11	3.E-10	a	a	a	a	a	a	a	a	a	4.E-10	7.E-11	3.E-10
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 7 by Receptor			Resident	4.E-10	7.E-11	3.E-10	-	-	-	-	-	-	-	-	-	4.E-10	7.E-11	3.E-10
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 25b
SUMMARY OF CTE CANCER RISKS
EMF Superfund Site, Pocatello, Idaho
(Page 8 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 8	Soil	Incidental Soil Ingestion	Resident	b	b	b	a	a	a	2.E-06	9.E-07	9.E-07	a	a	a	8.E-06	8.E-06	8.E-07
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	8.E-07	4.E-07	4.E-07	a	a	a	8.E-07	4.E-07	4.E-07
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	5.E-07	2.E-07	2.E-07	a	a	a	5.E-07	2.E-07	2.E-07
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	a	a	a	7.E-07	5.E-07	3.E-07	a	a	a	7.E-07	5.E-07	3.E-07
			Outdoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	---------- NA ----------												-	-	-
			Utility Worker	---------- NA ----------												-	-	-
		Dermal Absorption	Resident	b	b	b	a	a	a	a	a	a	a	a	a	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		Fugitive Dust Inhalation	Resident	7.E-10	7.E-11	7.E-10	a	a	a	1.E-09	5.E-10	6.E-10	a	a	a	2.E-09	6.E-10	1.E-09
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	8.E-09	4.E-09	4.E-09	a	a	a	8.E-09	4.E-09	4.E-09
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	a	a	a	1.E-04	9.E-05	3.E-05	a	a	a	1.E-04	9.E-05	3.E-05
			Outdoor Commercial/Industrial Worker	a	a	a	a	a	a	6.E-05	5.E-05	2.E-05	a	a	a	6.E-05	5.E-05	2.E-05
			Indoor Commercial/Industrial Worker	a	a	a	a	a	a	3.E-05	2.E-05	7.E-06	a	a	a	3.E-05	2.E-05	7.E-06
			Construction Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
			Utility Worker	a	a	a	a	a	a	a	a	a	a	a	a	-	-	-
Cancer Risks for DU 8 by Receptor			Resident	7.E-10	7.E-11	7.E-10	-	-	-	1.E-04	9.E-05	3.E-05	-	-	-	1.E-04	9.E-05	3.E-05
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	6.E-05	5.E-05	2.E-05	-	-	-	6.E-05	5.E-05	2.E-05
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	3.E-05	2.E-05	7.E-06	-	-	-	3.E-05	2.E-05	7.E-06
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Cancer risk exceeds 3E-04.

NA Not an applicable exposure route for the receptor of concern.
- No values to sum.
a) COC/ROC concentration in this DU is below screening level for receptor of concern.
b) COC/ROC not associated with carcinogenic effects by this pathway.

TABLE 26a
SUMMARY OF RME NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 1	Soil	Incidental Soil Ingestion	Resident	7.E-02	9.E-03	6.E-02	b	b	b	b	b	b	b	b	b	7.E-02	9.E-03	6.E-02
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	7.E-01	1.E-01	6.E-01	b	b	b	b	b	b	b	b	b	7.E-01	1.E-01	6.E-01
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	7.E-03	1.E-03	6.E-03	b	b	b	b	b	b	b	b	b	7.E-03	1.E-03	6.E-03
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	2.E-04	3.E-05	2.E-04	b	b	b	b	b	b	b	b	b	2.E-04	3.E-05	2.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 1 by Receptor			Resident	8.E-01	1.E-01	6.E-01	-	-	-	-	-	-	-	-	-	8.E-01	1.E-01	6.E-01
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26a
SUMMARY OF RME NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 2 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 2	Soil	Incidental Soil Ingestion	Resident	1.E-01	9.E-03	1.E-01	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	7.E-01	1.E-01	6.E-01	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	---------- NA ----------												-	-	-
			Utility Worker	---------- NA ----------												-	-	-
		Dermal Absorption	Resident	2.E-02	1.E-03	1.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	4.E-04	3.E-05	4.E-04	b	b	b	b	b	b	b	b	b	4.E-04	3.E-05	4.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 2 by Receptor			Resident	8.E-01	1.E-01	7.E-01	-	-	-	-	-	-	-	-	-	8.E-01	1.E-01	7.E-01
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26a
SUMMARY OF RME NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 3 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 3	Soil	Incidental Soil Ingestion	Resident	6.E-02	9.E-03	6.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	7.E-01	1.E-01	6.E-01	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	7.E-03	1.E-03	6.E-03	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	2.E-04	3.E-05	2.E-04	b	b	b	b	b	b	b	b	b	2.E-04	3.E-05	2.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 3 by Receptor			Resident	8.E-01	1.E-01	6.E-01	-	-	-	-	-	-	-	-	-	8.E-01	1.E-01	6.E-01
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26a
SUMMARY OF RME NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 4 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 4	Soil	Incidental Soil Ingestion	Resident	7.E-02	9.E-03	6.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	7.E-01	1.E-01	6.E-01	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	8.E-03	1.E-03	7.E-03	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	2.E-04	3.E-05	2.E-04	b	b	b	b	b	b	b	b	b	2.E-04	3.E-05	2.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 4 by Receptor			Resident	8.E-01	1.E-01	6.E-01	-	-	-	-	-	-	-	-	-	8.E-01	1.E-01	6.E-01
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26a
SUMMARY OF RME NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 5 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 5	Soil	Incidental Soil Ingestion	Resident	7.E-02	9.E-03	6.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	7.E-01	1.E-01	6.E-01	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	8.E-03	1.E-03	7.E-03	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	2.E-04	3.E-05	2.E-04	b	b	b	b	b	b	b	b	b	2.E-04	3.E-05	2.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 5 by Receptor			Resident	8.E-01	1.E-01	6.E-01	-	-	-	-	-	-	-	-	-	8.E-01	1.E-01	6.E-01
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26a
SUMMARY OF RME NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 6 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 6	Soil	Incidental Soil Ingestion	Resident	b	b	b	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 6 by Receptor			Resident	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26a
SUMMARY OF RME NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 7 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 7	Soil	Incidental Soil Ingestion	Resident	6.E-02	9.E-03	5.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	7.E-01	1.E-01	6.E-01	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	7.E-03	1.E-03	5.E-03	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	2.E-04	3.E-05	1.E-04	b	b	b	b	b	b	b	b	b	2.E-04	3.E-05	1.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 7 by Receptor			Resident	8.E-01	1.E-01	6.E-01	-	-	-	-	-	-	-	-	-	8.E-01	1.E-01	6.E-01
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26a
SUMMARY OF RME NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 8 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 8	Soil	Incidental Soil Ingestion	Resident	1.E-01	9.E-03	9.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	7.E-01	1.E-01	6.E-01	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	----------	NA	----------										-	-	-
			Indoor Commercial/Industrial Worker	----------	NA	----------										-	-	-
			Construction Worker	----------	NA	----------										-	-	-
			Utility Worker	----------	NA	----------										-	-	-
		Dermal Absorption	Resident	1.E-02	1.E-03	1.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	----------	NA	----------										-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	3.E-04	3.E-05	3.E-04	b	b	b	b	b	b	b	b	b	3.E-04	3.E-05	3.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	----------	NA	----------										-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 8 by Receptor			Resident	8.E-01	1.E-01	7.E-01	-	-	-	-	-	-	-	-	-	8.E-01	1.E-01	7.E-01
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Hazard quotient exceeds 1.

NA Not an applicable exposure route for the receptor of concern.
- No values to sum.
a) COC/ROC concentration in this DU is below screening level for receptor of concern.
b) COC/ROC not associated with noncarcinogenic effects by this pathway.

TABLE 26b
SUMMARY OF CTE NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 1 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 1	Soil	Incidental Soil Ingestion	Resident	2.E-02	3.E-03	2.E-02	b	b	b	b	b	b	b	b	b	2.E-02	3.E-03	2.E-02
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	8.E-02	2.E-02	7.E-02	b	b	b	b	b	b	b	b	b	8.E-02	2.E-02	7.E-02
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	7.E-04	9.E-05	6.E-04	b	b	b	b	b	b	b	b	b	7.E-04	9.E-05	6.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	1.E-04	2.E-05	1.E-04	b	b	b	b	b	b	b	b	b	1.E-04	2.E-05	1.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 1 by Receptor			Resident	1.E-01	2.E-02	9.E-02	-	-	-	-	-	-	-	-	-	1.E-01	2.E-02	9.E-02
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26b
SUMMARY OF CTE NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 2 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 2	Soil	Incidental Soil Ingestion	Resident	4.E-02	3.E-03	4.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	8.E-02	2.E-02	7.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	---------- NA ----------												-	-	-
			Utility Worker	---------- NA ----------												-	-	-
		Dermal Absorption	Resident	1.E-03	9.E-05	1.E-03	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	3.E-04	2.E-05	2.E-04	b	b	b	b	b	b	b	b	b	3.E-04	2.E-05	2.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	---------- NA ----------												-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	---------- NA ----------			b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 2 by Receptor			Resident	1.E-01	2.E-02	1.E-01	-	-	-	-	-	-	-	-	-	1.E-01	2.E-02	1.E-01
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26b
SUMMARY OF CTE NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 3 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 3	Soil	Incidental Soil Ingestion	Resident	2.E-02	3.E-03	2.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	8.E-02	2.E-02	7.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	6.E-04	9.E-05	5.E-04	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	1.E-04	2.E-05	1.E-04	b	b	b	b	b	b	b	b	b	1.E-04	2.E-05	1.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 3 by Receptor			Resident	1.E-01	2.E-02	9.E-02	-	-	-	-	-	-	-	-	-	1.E-01	2.E-02	9.E-02
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26b
SUMMARY OF CTE NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 4 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 4	Soil	Incidental Soil Ingestion	Resident	2.E-02	3.E-03	2.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	8.E-02	2.E-02	7.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	7.E-04	9.E-05	6.E-04	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	1.E-04	2.E-05	1.E-04	b	b	b	b	b	b	b	b	b	1.E-04	2.E-05	1.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 4 by Receptor			Resident	1.E-01	2.E-02	9.E-02	-	-	-	-	-	-	-	-	-	1.E-01	2.E-02	9.E-02
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26b
SUMMARY OF CTE NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 5 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 5	Soil	Incidental Soil Ingestion	Resident	2.E-02	3.E-03	2.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	8.E-02	2.E-02	7.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	7.E-04	9.E-05	6.E-04	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	1.E-04	2.E-05	1.E-04	b	b	b	b	b	b	b	b	b	1.E-04	2.E-05	1.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 5 by Receptor			Resident	1.E-01	2.E-02	9.E-02	-	-	-	-	-	-	-	-	-	1.E-01	2.E-02	9.E-02
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26b
SUMMARY OF CTE NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 6 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 6	Soil	Incidental Soil Ingestion	Resident	b	b	b	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	-	-	-	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	b	b	b	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 6 by Receptor			Resident	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26b
SUMMARY OF CTE NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 7 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 7	Soil	Incidental Soil Ingestion	Resident	1.E-02	3.E-03	1.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	8.E-02	2.E-02	7.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker					----------	NA	----------						-	-	-
			Utility Worker					----------	NA	----------						-	-	-
		Dermal Absorption	Resident	4.E-04	9.E-05	4.E-04	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	8.E-05	2.E-05	6.E-05	b	b	b	b	b	b	b	b	b	8.E-05	2.E-05	6.E-05
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker					----------	NA	----------						-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 7 by Receptor			Resident	1.E-01	2.E-02	8.E-02	-	-	-	-	-	-	-	-	-	1.E-01	2.E-02	8.E-02
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 26b
SUMMARY OF CTE NON-CANCER HAZARD QUOTIENTS
EMF Superfund Site, Pocatello, Idaho
(Page 8 of 8)

Area	Media	Pathway of Exposure	Receptor	Cadmium			Uranium-238			Radium-226			Lead-210			Total		
				Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc	Total	Bkgd	Inc
DU 8	Soil	Incidental Soil Ingestion	Resident	3.E-02	3.E-03	3.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Ingestion of Homegrown Produce	Resident	8.E-02	2.E-02	7.E-02	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	----------	NA	----------										-	-	-
			Indoor Commercial/Industrial Worker	----------	NA	----------										-	-	-
			Construction Worker	----------	NA	----------										-	-	-
			Utility Worker	----------	NA	----------										-	-	-
		Dermal Absorption	Resident	9.E-04	9.E-05	8.E-04	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	----------	NA	----------										-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		Fugitive Dust Inhalation	Resident	2.E-04	2.E-05	1.E-04	b	b	b	b	b	b	b	b	b	2.E-04	2.E-05	1.E-04
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	----------	NA	----------										-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
		External Gamma Radiation	Resident	----------	NA	----------	b	b	b	b	b	b	b	b	b	-	-	-
			Outdoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Indoor Commercial/Industrial Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Construction Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
			Utility Worker	a	a	a	b	b	b	b	b	b	b	b	b	-	-	-
HQs for DU 8 by Receptor			Resident	1.E-01	2.E-02	9.E-02	-	-	-	-	-	-	-	-	-	1.E-01	2.E-02	9.E-02
			Outdoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Indoor Commercial/Industrial Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Construction Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Utility Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Hazard quotient exceeds 1.

NA Not an applicable exposure route for the receptor of concern.
- No values to sum.
a) COC/ROC concentration in this DU is below screening level for receptor of concern.
b) COC/ROC not associated with noncarcinogenic effects by this pathway.

ATTACHMENT C - REFERENCES

BEI. 1996. Remedial Investigation Report for the Eastern Michaud Flats Superfund site. Bechtel Environmental, Inc. Prepared for the FMC Corporation and the J.R. Simplot Company.

BEI. 2004. Remedial Investigation Update Memorandum for the FMC Plant Operable Unit. Bechtel Environmental, Inc. Prepared for FMC Idaho LLC, Pocatello, Idaho.

E&E. 1996. Baseline Human Health Risk Assessment - Eastern Michaud Flats, Pocatello, Idaho. Prepared for EPA by Ecology and Environment, Inc. under ARC Region 10 Contract # 68-W9-0029.

EPA, 1989. Risk Assessment Guidance for Superfund Volume 1 – Human Health Evaluation Manual (Part A). Interim Final. EPA/540/1-89/002.

EPA. 1991. Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual – Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03

EPA. 1993. Superfund's Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure. Preliminary Review Draft.

EPA. 1996. Soil Screening Guidance: Technical Background Document. EPA/540/R95/128

EPA. 1997. Exposure Factors Handbook. Volumes I-III.

EPA 1998. Record of Decision. Declaration, Decision Summary, and Responsiveness Summary for Eastern Michaud Flats Superfund Site, Pocatello, Idaho. U.S. Environmental Protection Agency, Region 10. June 1998.

EPA. 1999. Federal Guidance Report No. 13 Cancer Risk Coefficients for Environmental Exposure to Radionuclides. Oak Ridge, TN: Oak Ridge National Laboratory
EPA, 2001. Radionuclide Carcinogenicity Slope Factors.
http://www.epa.gov/radiation/heast.

EPA. 2000. Soil Screening Guidance for Radionuclides: Technical Background Document. EPA/540-R-00-006. October 2000.

EPA. 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. OSWER 9355.4-24. December 2002.

EPA 2004. Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual, Part E, Supplemental Guidance for Dermal Risk Assessment.

EPA. 2011. Preliminary Remediation Goals for Radionuclides (http://epa-prgs.ornl.gov/radionuclides/).

MWH. 2009. Off-Plant OU Supplemental Surface Soil Radionuclide Investigation Work Plan. Prepared for FMC Idaho LLC, Pocatello, Idaho.

MWH. 2010a. Supplemental Remedial Investigation Addendum Report for the FMC Plant Operable Unit – January 2010 (SRI Addendum Report).

MWH. 2010b. Off-Plant OU Supplemental Surface Soil Radionuclide Investigation. Prepared for FMC Idaho LLC, Pocatello, Idaho.

ATTACHMENT D

LABORATORY DATA REPORTS AND LDC DATA VALIDATION REPORTS

(Included on CD only)

ATTACHMENT E

EXCEL WORKBOOK

Comprehensive HHRA Cd Risk Calculations_April 2001.xls

(Included on CD only)